

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
3 January 2002 (03.01.2002)

(10) International Publication Number
WO 02/00677 A1

PCT

- (51) International Patent Classification⁷: C07H 21/02, 21/04, C12N 1/20, 15/00, 15/09, 15/63, 15/70, 15/74
- (21) International Application Number: PCT/US01/18569
- (22) International Filing Date: 7 June 2001 (07.06.2001)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/209,467 7 June 2000 (07.06.2000) US
- (71) Applicant (for all designated States except US): **HUMAN GENOME SCIENCES, INC.** [US/US]; 9410 Key West Avenue, Rockville, MD 20850 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **BIRSE, Charles, E.** [GB/US]; 13822 Saddlevue Drive, North Potomac, MD 20878 (US). **ROSEN, Craig, A.** [US/US]; 22400 Rolling Hill Lane, Laytonsville, MD 20882 (US).
- (74) Agents: **WALES, Michele, M.** et al.; Human Genome Sciences, Inc., 9410 Key West Avenue, Rockville, MD 20850 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- with sequence listing part of description published separately in electronic form and available upon request from the International Bureau

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: NUCLEIC ACIDS, PROTEINS, AND ANTIBODIES

(57) Abstract: The present invention relates to novel ovarian related polynucleotides and the polypeptides encoded by these polynucleotides herein collectively known as "ovarian antigens", and the use of such ovarian antigens for detecting disorders of the ovaries and/or breast, particularly the presence of ovarian and/or breast cancer and ovarian and/or breast cancer metastases. More specifically, isolated ovarian associated nucleic acid molecules are provided encoding novel ovarian associated polypeptides. Novel ovarian polypeptides and antibodies that bind to these polypeptides are provided. Also provided are vectors, host cells, and recombinant and synthetic methods for producing human ovarian associated polynucleotides and/or polypeptides. The invention further relates to diagnostic and therapeutic methods useful for diagnosing, treating, preventing and/or prognosing disorders related to the ovaries and/or breast, including ovarian and/or breast cancer, and therapeutic methods for treating such disorders. The invention further relates to screening methods for identifying agonists and antagonists of polynucleotides and polypeptides of the invention. The present invention further relates to methods and/or compositions for inhibiting the production and function of the polypeptides of the present invention.

WO 02/00677 A1

Nucleic Acids, Proteins, and Antibodies

[0001] This application refers to a "Sequence Listing" that is provided on electronic media in computer readable form pursuant to Administrative Instructions Section 801(a)(i). The Sequence Listing forms a part of this description pursuant to Rule 5.2 and Administrative Instructions Sections 801 to 806, and is hereby incorporated in its entirety.

[0002] The Sequence Listing is provided as an electronic file (PA133PCTSL.txt, 7,347,875 bytes in size, created on 07 June 2001) on four identical compact discs (CD-R), labeled "COPY 1," "COPY 2," "COPY 3," and "CRF." The Sequence Listing complies with Annex C of the Administrative Instructions, and may be viewed, for example, on an IBM-PC machine running the MS-Windows operating system by using the V viewer software, version 2000 (see World Wide Web URL: <http://www.fileviewer.com>).

Field of the Invention

[0003] The present invention relates to novel ovarian related polynucleotides, the polypeptides encoded by these polynucleotides herein collectively referred to as "ovarian antigens," and antibodies that immunospecifically bind these polypeptides, and the use of such ovarian polynucleotides, antigens, and antibodies for detecting, treating, preventing and/or prognosing disorders of the reproductive system, particularly disorders of the ovaries and/or breast, including, but not limited to, the presence of ovarian and/or breast cancer and ovarian and/or breast cancer metastases. More specifically, isolated ovarian nucleic acid molecules are provided encoding novel ovarian polypeptides. Novel ovarian

nucleic acid molecules are provided encoding novel ovarian polypeptides. Novel ovarian polypeptides and antibodies that bind to these polypeptides are provided. Also provided are vectors, host cells, and recombinant and synthetic methods for producing human ovarian polynucleotides, polypeptides, and/or antibodies. The invention further relates to diagnostic and therapeutic methods useful for diagnosing, treating, preventing and/or prognosing disorders related to the ovaries and/or breast, including ovarian and/or breast cancer, and therapeutic methods for treating such disorders. The invention further relates to screening methods for identifying agonists and antagonists of polynucleotides and polypeptides of the invention. The invention further relates to methods and/or compositions for inhibiting or promoting the production and/or function of the polypeptides of the invention.

Background of the Invention

[0004] The female reproductive system is comprised of both external and internal organs. The external organs function in permitting sperm to enter the body and protecting the internal genital organs from infection and injury. The internal organs form a pathway (the genital tract) for reproduction, beginning at the ovaries, through the fallopian tubes (oviducts) and uterus, to the birth canal (vagina).

[0005] The sexual and reproductive functions in the female can be divided into two major phases: first, preparation of the body for conception, and second, the gestation and parturition. Gestation and parturition only occur if an ovum becomes fertilized. If fertilization does not occur, the reproductive system undergoes a cycle to ensure frequent readiness for conception and fertilization.

[0006] The complexity of the female reproductive system renders it susceptible to several diseases and disorders. In particular, the ovaries and breast are subject to diseases and/or disorders such as infections, hyperproliferative disorders, as well as regulatory and genetic abnormalities.

Disorders of the Ovary

[0007] A woman's ovaries are located on both sides of the uterus, below the opening of the fallopian tubes (tubes that extend from the uterus to the ovaries). In

addition to producing egg cells for reproduction, the ovaries produce estrogen and progesterone, which affect many of the female characteristics and reproductive functions.

[0008] Anovulation (the absence of egg release by the ovaries) is a serious condition leading to infertility. The exact etiology of anovulation, especially in women with otherwise normal menstrual cycles, is unclear, however several potential causes are under study, including: impaired follicular development (probably due to low or absent estrogen production or binding), normal follicular development with lack of egg release (probably due to progesterone deficiency), or insufficient production of gonadotropin-releasing hormone from the hypothalamus. Current treatments include clomiphene injections or hormonal therapy, although both can lead to serious side effects such as ovarian cancer and ovarian hyperstimulation syndrome.

[0009] Anovulation is also associated with polycystic ovary syndrome (also known as Stein-Leventhal syndrome). This syndrome is an endocrine disorder characterized by an elevated level of male hormones (androgens). Other than anovulation, symptoms include growth of male-patterned body hair (hirsutism), excessive acne, irregular or absent menses, excessive bleeding, and obesity. Usually, the ovaries appear enlarged and may contain many follicular cysts.

[0010] Ovarian cancer develops most often in women between the ages of 50 and 70. It is the third most common cancer of the female reproductive system, but more women die of ovarian cancers than of any other. Ovaries include a variety of cell types, each of which may give rise to a distinct type of cancer, including, but not limited to, ovarian epithelial cancer, ovarian germ cell tumors, ovarian papillary serous adenocarcinoma, ovarian mucinous adenocarcinoma, ovarian Krukenberg tumor, malignant mixed Mullerian tumors, and ovarian low malignant tumors.

[0011] Other disorders of the ovaries also include, but are not limited to, inflammatory disorders, such as oophoritis (e.g., caused by viral or bacterial infection), ovarian cysts, and autoimmune disorders (e.g., premature ovarian failure and autoimmune oophoritis).

Disorders of the Breast

[0012] The breast is comprised of different structures, each with its own specific function. One-third of the breast is comprised of fatty tissue. The other two-thirds is made

up of structural components called ducts and lobules. Milk is produced in the lobules and funneled through the ducts to the nipple. Disorders of the breast typically involve the formation of lesions within breast tissue. While many of these lesions are benign in nature, they may lead to cancer if left untreated.

[0013] Benign breast lesions include, for example, cysts, which are non-cancerous, fluid-filled sacs that form a mass within breast tissue. The cause of breast cysts is unknown, though injury may be involved, and their main symptom is pain. While considered harmless, a professional should drain cysts and the fluid examined because cancer of the cyst wall, although quite rare, is possible.

[0014] Other benign breast lesions include fibrous breast lumps (fibroadenomas), breast infection (mastitis), intraductal papilloma, and abscesses. Fibrous breast lumps are small, solid lumps of glandular tissue. These lumps usually appear in young women, often in teenagers, and are easy to remove. Intraductal papilloma are small lumps located within a milk duct, often causing inappropriate discharge from the nipple. Breast abscesses are collections of pus in breast tissue that develop from breast infections that go untreated.

[0015] Breast cancer is the most common cancer among women, other than skin cancer and is the second leading cause of cancer death in women, after lung cancer. The American Cancer Society predicts that there will be about 182,800 new cases of invasive breast cancer in the year 2000 among women in this country and about 40,800 deaths from the disease. Breast cancer also occurs among men, although much less often. It is generally believed that this malignancy arises from a multi step process involving mutations in a relatively small number of genes, perhaps 10 or less. These mutations result in significant changes in the growth and differentiation of breast tissue that allow it to grow independent of normal cellular controls, to metastasize, and to escape immune surveillance. The genetic heterogeneity of most breast cancers suggests that they arise by a variety of initiating events and that the characteristics of individual cancers are due to the collective pattern of genetic changes that accumulate.

[0016] The discovery of new human ovarian associated polynucleotides, the polypeptides encoded by them, and antibodies that immunospecifically bind these polypeptides, satisfies a need in the art by providing new compositions which are useful in

the diagnosis, treatment, prevention and/or prognosis of disorders of the ovaries and/or breast, including, but not limited to, neoplastic disorders (e.g., ovarian Krukenberg tumor, malignant mixed Mullerian tumors, and/or as described under "Hyperproliferative Disorders" below), infectious diseases (e.g., mastitis, oophoritis, and/or as described under "Infectious Diseases" below), and inflammatory diseases (e.g., abscesses and/or as described under "Immune Disorders" below) and as described in "Reproductive System Disorders" below.

Summary of the Invention

[0017] The present invention relates to novel ovarian related polynucleotides, the polypeptides encoded by these polynucleotides herein collectively referred to as "ovarian antigens," and antibodies that immunospecifically bind these polypeptides, and the use of such ovarian polynucleotides, antigens, and antibodies for detecting, treating, preventing and/or prognosing disorders of the reproductive system, particularly disorders of the ovaries and/or breast, including, but not limited to, the presence of ovarian and/or breast cancer and ovarian and/or breast cancer metastases. More specifically, isolated ovarian nucleic acid molecules are provided encoding novel ovarian polypeptides. Novel ovarian polypeptides and antibodies that bind to these polypeptides are provided. Also provided are vectors, host cells, and recombinant and synthetic methods for producing human ovarian polynucleotides, polypeptides, and/or antibodies. The invention further relates to diagnostic and therapeutic methods useful for diagnosing, treating, preventing and/or prognosing disorders related to the ovaries and/or breast, including ovarian and/or breast cancer, and therapeutic methods for treating such disorders. The invention further relates to screening methods for identifying agonists and antagonists of polynucleotides and polypeptides of the invention. The invention further relates to methods and/or compositions for inhibiting or promoting the production and/or function of the polypeptides of the invention.

Detailed Description

Tables

[0018] Table 1 summarizes some of the polynucleotides encompassed by the invention (including cDNA clones related to the sequences (Clone ID NO:Z), contig sequences (contig identifier (Contig ID:) and contig nucleotide sequence identifier (SEQ ID NO:X)) and further summarizes certain characteristics of these polynucleotides and the polypeptides encoded thereby. The first column provides a unique clone identifier, "Clone ID NO:Z", for a cDNA plasmid related to each ovarian associated contig sequence disclosed in Table 1. The second column provides a unique contig identifier, "Contig ID:" for each of the contig sequences disclosed in Table 1. The third column provides the sequence identifier, "SEQ ID NO:X", for each of the contig polynucleotide sequences disclosed in Table 1. The fourth column, "ORF (From-To)", provides the location (i.e., nucleotide position numbers) within the polynucleotide sequence of SEQ ID NO:X that delineate the preferred open reading frame (ORF) shown in the sequence listing and referenced in Table 1 as SEQ ID NO:Y (column 5). Column 6 lists residues comprising predicted epitopes contained in the polypeptides encoded by each of the preferred ORFs (SEQ ID NO:Y). Identification of potential immunogenic regions was performed according to the method of Jameson and Wolf (CABIOS, 4:181-186 (1988)); specifically, the Genetics Computer Group (GCG) implementation of this algorithm, embodied in the program PEPTIDESTRUCTURE (Wisconsin Package v10.0, Genetics Computer Group (GCG), Madison, Wisc.). This method returns a measure of the probability that a given residue is found on the surface of the protein. Regions where the antigenic index score is greater than 0.9 over at least 6 amino acids are indicated in Table 1 as "Predicted Epitopes." In particular embodiments, ovarian associated polypeptides of the invention comprise, or alternatively consist of, one, two, three, four, five or more of the predicted epitopes described in Table 1. It will be appreciated that depending on the analytical criteria used to predict antigenic determinants, the exact address of the determinant may vary slightly. Column 7, "Tissue Distribution" shows the expression profile of tissue, cells, and/or cell line libraries which express the polynucleotides of the invention. The first number in column 7 (preceding the colon), represents the tissue/cell source identifier

code corresponding to the code and description provided in Table 4. Expression of these polynucleotides was not observed in the other tissues and/or cell libraries tested. For those identifier codes in which the first two letters are not "AR", the second number in column 7 (following the colon), represents the number of times a sequence corresponding to the reference polynucleotide sequence (e.g., SEQ ID NO:X) was identified in the tissue/cell source. Those tissue/cell source identifier codes in which the first two letters are "AR" designate information generated using DNA array technology. Utilizing this technology, cDNAs were amplified by PCR and then transferred, in duplicate, onto the array. Gene expression was assayed through hybridization of first strand cDNA probes to the DNA array. cDNA probes were generated from total RNA extracted from a variety of different tissues and cell lines. Probe synthesis was performed in the presence of ³³P dCTP, using oligo(dT) to prime reverse transcription. After hybridization, high stringency washing conditions were employed to remove non-specific hybrids from the array. The remaining signal, emanating from each gene target, was measured using a Phosphorimager. Gene expression was reported as Phosphor Stimulating Luminescence (PSL) which reflects the level of phosphor signal generated from the probe hybridized to each of the gene targets represented on the array. A local background signal subtraction was performed before the total signal generated from each array was used to normalize gene expression between the different hybridizations. The value presented after "[array code]:" represents the mean of the duplicate values, following background subtraction and probe normalization. One of skill in the art could routinely use this information to identify normal and/or diseased tissue(s) which show a predominant expression pattern of the corresponding polynucleotide of the invention or to identify polynucleotides which show predominant and/or specific tissue and/or cell expression. Column 8, "Cytologic Band," provides the chromosomal location of polynucleotides corresponding to SEQ ID NO:X. Chromosomal location was determined by finding exact matches to EST and cDNA sequences contained in the NCBI (National Center for Biotechnology Information) UniGene database. Given a presumptive chromosomal location, disease locus association was determined by comparison with the Morbid Map, derived from Online Mendelian Inheritance in Man (Online Mendelian Inheritance in Man, OMIM™. McKusick-Nathans Institute for Genetic Medicine, Johns Hopkins University (Baltimore, MD) and National Center for Biotechnology Information, National Library of Medicine (Bethesda, MD) 2000. World

Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>). If the putative chromosomal location of the Query overlapped with the chromosomal location of a Morbid Map entry, an OMIM identification number is provided in column 9 labeled "OMIM Disease Reference(s)". A key to the OMIM reference identification numbers is provided in Table 5.

[0019] Table 2 summarizes homology and features of some of the polypeptides of the invention. The first column provides a unique clone identifier, "Clone ID NO:Z", corresponding to a cDNA disclosed in Table 1. The second column provides the unique contig identifier, "Contig ID:" corresponding to contigs in Table 1 and allowing for correlation with the information in Table 1. The third column provides the sequence identifier, "SEQ ID NO:X", for the contig polynucleotide sequences. The fourth column provides the analysis method by which the homology/identity disclosed in the row was determined. Comparisons were made between polypeptides encoded by the polynucleotides of the invention and either a non-redundant protein database (herein referred to as "NR"), or a database of protein families (herein referred to as "PFAM") as further described below. The fifth column provides a description of PFAM/NR hits having significant matches to a polypeptide of the invention. Column six provides the accession number of the PFAM/NR hit disclosed in the fifth column. Column seven, "Score/Percent Identity", provides a quality score or the percent identity, of the hit disclosed in column five. Columns 8 and 9, "NT From" and "NT To" respectively, delineate the polynucleotides in "SEQ ID NO:X" that encode a polypeptide having a significant match to the PFAM/NR database as disclosed in the fifth column. In specific embodiments, polypeptides of the invention comprise, or alternatively consist of, an amino acid sequence encoded by the polynucleotides in SEQ ID NO:X as delineated in columns 8 and 9, or fragments or variants thereof.

[0020] Table 3 provides polynucleotide sequences that may be disclaimed according to certain embodiments of the invention. The first column provides a unique clone identifier, "Clone ID NO:Z", for a cDNA clone related to ovarian associated contig sequences disclosed in Table 1. The second column provides the sequence identifier, "SEQ ID NO:X", for contig polynucleotide sequences disclosed in Table 1. The third column provides the unique contig identifier, "Contig ID", for contigs disclosed in Table 1. The fourth column provides a unique integer 'a' where 'a' is any integer between 1 and

the final nucleotide minus 15 of SEQ ID NO:X, represented as "Range of a", and the fifth column provides a unique integer 'b' where 'b' is any integer between 15 and the final nucleotide of SEQ ID NO:X, represented as "Range of b", where both a and b correspond to the positions of nucleotide residues shown in SEQ ID NO:X, and where b is greater than or equal to a + 14. For each of the polynucleotides shown as SEQ ID NO:X, the uniquely defined integers can be substituted into the general formula of a-b, and used to describe polynucleotides which may be preferably excluded from the invention. In certain embodiments, preferably excluded from the polynucleotides of the invention (including polynucleotide fragments and variants as described herein and diagnostic and/or therapeutic uses based on these polynucleotides) are at least one, two, three, four, five, ten, or more of the polynucleotide sequence(s) having the accession number(s) disclosed in the sixth column of this Table. In further embodiments, preferably excluded from the invention are the specific polynucleotide sequence(s) contained in the clones corresponding to at least one, two, three, four, five, ten, or more of the available material having the accession numbers identified in the sixth column of this Table.

[0021] Table 4 provides a key to the tissue/cell source identifier code disclosed in Table 1, column 7. Column 1 provides the key to the tissue/cell source identifier code disclosed in Table 1, Column 7. Columns 2-5 provide a description of the tissue or cell source. Codes corresponding to diseased tissues are indicated in column 6 with the word "disease". The use of the word "disease" in column 6 is non-limiting. The tissue or cell source may be specific (e.g. a neoplasm), or may be disease-associated (e.g., a tissue sample from a normal portion of a diseased organ). Furthermore, tissues and/or cells lacking the "disease" designation may still be derived from sources directly or indirectly involved in a disease state or disorder, and therefore may have a further utility in that disease state or disorder. In numerous cases where the tissue/cell source is a library, column 7 identifies the vector used to generate the library.

[0022] Table 5 provides a key to the OMIM™ reference identification numbers disclosed in Table 1, column 9. OMIM reference identification numbers (Column 1) were derived from Online Mendelian Inheritance in Man (Online Mendelian Inheritance in Man, OMIM™. McKusick-Nathans Institute for Genetic Medicine, Johns Hopkins University (Baltimore, MD) and National Center for Biotechnology Information, National Library of Medicine, (Bethesda, MD) 2000. World Wide Web URL:

<http://www.ncbi.nlm.nih.gov/omim/>). Column 2 provides diseases associated with the cytologic band disclosed in Table 1, column 8, as determined from the Morbid Map database.

[0023] Table 6 summarizes ATCC Deposits, Deposit dates, and ATCC designation numbers of deposits made with the ATCC in connection with the present application.

[0024] Table 7 shows the cDNA libraries sequenced, tissue source description, vector information and ATCC designation numbers relating to these cDNA libraries.

Definitions

[0025] The following definitions are provided to facilitate understanding of certain terms used throughout this specification.

[0026] In the present invention, "isolated" refers to material removed from its original environment (e.g., the natural environment if it is naturally occurring), and thus is altered "by the hand of man" from its natural state. For example, an isolated polynucleotide could be part of a vector or a composition of matter, or could be contained within a cell, and still be "isolated" because that vector, composition of matter, or particular cell is not the original environment of the polynucleotide. The term "isolated" does not refer to genomic or cDNA libraries, whole cell total or mRNA preparations, genomic DNA preparations (including those separated by electrophoresis and transferred onto blots), sheared whole cell genomic DNA preparations or other compositions where the art demonstrates no distinguishing features of the polynucleotide sequences of the present invention.

[0027] As used herein, a "polynucleotide" refers to a molecule having a nucleic acid sequence encoding SEQ ID NO:Y or a fragment or variant thereof; a nucleic acid sequence contained in SEQ ID NO:X (as described in column 3 of Table 1) or the complement thereof; or a cDNA sequence contained in Clone ID NO:Z (as described in column 1 of Table 1 and contained within a library deposited with the ATCC). For example, the polynucleotide can contain the nucleotide sequence of the full length cDNA sequence, including the 5' and 3' untranslated sequences, the coding region, as well as fragments, epitopes, domains, and variants of the nucleic acid sequence. Moreover, as used herein, a "polypeptide" refers to a molecule having an amino acid sequence encoded by a polynucleotide of the invention as broadly defined (obviously excluding poly-

Phenylalanine or poly-Lysine peptide sequences which result from translation of a polyA tail of a sequence corresponding to a cDNA).

[0028] As used herein, an "ovarian antigen" refers collectively to any polynucleotide disclosed herein (e.g., a nucleic acid sequence contained in SEQ ID NO:X or the complement thereof, or cDNA sequence contained in Clone ID NO:Z, (e.g., a nucleic acid sequence contained in SEQ ID NO:X or the complement thereof, or cDNA sequence contained in Clone ID NO:Z, and fragments or variants thereof as described herein) or any polypeptide disclosed herein (e.g., an amino acid sequence contained in SEQ ID NO:Y, an amino acid sequence encoded by SEQ ID NO:X, or the complement thereof, an amino acid sequence encoded by the cDNA sequence contained in Clone ID NO:Z, and fragments or variants thereof as described herein). These ovarian antigens have been determined to be predominantly expressed in ovarian tissues, including normal or diseased tissues (as shown in Table 1 column 7 and Table 4).

[0029] In the present invention, "SEQ ID NO:X" was often generated by overlapping sequences contained in multiple clones (contig analysis). A representative clone containing all or most of the sequence for SEQ ID NO:X is deposited at Human Genome Sciences, Inc. (HGS) in a catalogued and archived library. As shown, for example, in column 1 of Table 1, each clone is identified by a cDNA Clone ID (identifier generally referred to herein as Clone ID NO:Z). Each Clone ID is unique to an individual clone and the Clone ID is all the information needed to retrieve a given clone from the HGS library. Furthermore, certain clones disclosed in this application have been deposited with the ATCC on June 5, 2000 and were given ATCC Deposit Nos. PTA-1982 and PTA-1985. In addition to the individual cDNA clone deposits, most of the cDNA libraries from which the clones were derived were deposited at the American Type Culture Collection (hereinafter "ATCC"). Table 7 provides a list of the deposited cDNA libraries. One can use the Clone ID NO:Z to determine the library source by reference to Tables 6 and 7. Table 7 lists the deposited cDNA libraries by name and links each library to an ATCC Deposit. Library names contain four characters, for example, "HTWE." The name of a cDNA clone (Clone ID NO:Z) isolated from that library begins with the same four characters, for example "HTWEP07". As mentioned below, Table 1 correlates the Clone ID NO:Z names with SEQ ID NO:X. Thus, starting with an SEQ ID NO:X, one can use Tables 1A, 6 and 7 to determine the corresponding Clone ID NO:Z, which library it came

from and which ATCC deposit the library is contained in. Furthermore, it is possible to retrieve a given cDNA clone from the source library by techniques known in the art and described elsewhere herein. The ATCC is located at 10801 University Boulevard, Manassas, Virginia 20110-2209, USA. The ATCC deposits were made pursuant to the terms of the Budapest Treaty on the international recognition of the deposit of microorganisms for the purposes of patent procedure.

[0030] In specific embodiments, the polynucleotides of the invention are at least 15, at least 30, at least 50, at least 100, at least 125, at least 500, or at least 1000 continuous nucleotides but are less than or equal to 300 kb, 200 kb, 100 kb, 50 kb, 15 kb, 10 kb, 7.5 kb, 5 kb, 2.5 kb, 2.0 kb, or 1 kb, in length. In a further embodiment, polynucleotides of the invention comprise a portion of the coding sequences, as disclosed herein, but do not comprise all or a portion of any intron. In another embodiment, the polynucleotides comprising coding sequences do not contain coding sequences of a genomic flanking gene (i.e., 5' or 3' to the gene of interest in the genome). In other embodiments, the polynucleotides of the invention do not contain the coding sequence of more than 1000, 500, 250, 100, 50, 25, 20, 15, 10, 5, 4, 3, 2, or 1 genomic flanking gene(s).

[0031] A "polynucleotide" of the present invention also includes those polynucleotides capable of hybridizing, under stringent hybridization conditions, to sequences contained in SEQ ID NO:X, or the complement thereof (e.g., the complement of any one, two, three, four, or more of the polynucleotide fragments described herein), the polynucleotide sequence delineated in columns 8 and 9 of Table 2 or the complement thereof, and/or cDNA sequences contained in Clone ID NO:Z (e.g., the complement of any one, two, three, four, or more of the polynucleotide fragments, and/or the cDNA clone within the pool of cDNA clones deposited with the ATCC, described herein). "Stringent hybridization conditions" refers to an overnight incubation at 42 degree C in a solution comprising 50% formamide, 5x SSC (750 mM NaCl, 75 mM trisodium citrate), 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA, followed by washing the filters in 0.1x SSC at about 65 degree C.

[0032] Also contemplated are nucleic acid molecules that hybridize to the polynucleotides of the present invention at lower stringency hybridization conditions.

Changes in the stringency of hybridization and signal detection are primarily accomplished through the manipulation of formamide concentration (lower percentages of formamide result in lowered stringency), salt conditions, or temperature. For example, lower stringency conditions include an overnight incubation at 37 degree C in a solution comprising 6X SSPE (20X SSPE = 3M NaCl; 0.2M NaH₂PO₄; 0.02M EDTA, pH 7.4), 0.5% SDS, 30% formamide, 100 ug/ml salmon sperm blocking DNA; followed by washes at 50 degree C with 1XSSPE, 0.1% SDS. In addition, to achieve even lower stringency, washes performed following stringent hybridization can be done at higher salt concentrations (e.g. 5X SSC).

[0033] Note that variations in the above conditions may be accomplished through the inclusion and/or substitution of alternate blocking reagents used to suppress background in hybridization experiments. Typical blocking reagents include Denhardt's reagent, BLOTTO, heparin, denatured salmon sperm DNA, and commercially available proprietary formulations. The inclusion of specific blocking reagents may require modification of the hybridization conditions described above, due to problems with compatibility.

[0034] Of course, a polynucleotide which hybridizes only to polyA⁺ sequences (such as any 3' terminal polyA⁺ tract of a cDNA shown in the sequence listing), or to a complementary stretch of T (or U) residues, would not be included in the definition of "polynucleotide," since such a polynucleotide would hybridize to any nucleic acid molecule containing a poly (A) stretch or the complement thereof (e.g., practically any double-stranded cDNA clone generated using oligo dT as a primer).

[0035] The polynucleotide of the present invention can be composed of any polyribonucleotide or polydeoxribonucleotide, which may be unmodified RNA or DNA or modified RNA or DNA. For example, polynucleotides can be composed of single- and double-stranded DNA, DNA that is a mixture of single- and double-stranded regions, single- and double-stranded RNA, and RNA that is mixture of single- and double-stranded regions, hybrid molecules comprising DNA and RNA that may be single-stranded or, more typically, double-stranded or a mixture of single- and double-stranded regions. In addition, the polynucleotide can be composed of triple-stranded regions comprising RNA or DNA or both RNA and DNA. A polynucleotide may also contain one or more modified bases or DNA or RNA backbones modified for stability or for other reasons.

"Modified" bases include, for example, tritylated bases and unusual bases such as inosine. A variety of modifications can be made to DNA and RNA; thus, "polynucleotide" embraces chemically, enzymatically, or metabolically modified forms.

[0036] The polypeptide of the present invention can be composed of amino acids joined to each other by peptide bonds or modified peptide bonds, i.e., peptide isosteres, and may contain amino acids other than the 20 gene-encoded amino acids. The polypeptides may be modified by either natural processes, such as posttranslational processing, or by chemical modification techniques which are well known in the art. Such modifications are well described in basic texts and in more detailed monographs, as well as in a voluminous research literature. Modifications can occur anywhere in a polypeptide, including the peptide backbone, the amino acid side-chains and the amino or carboxyl termini. It will be appreciated that the same type of modification may be present in the same or varying degrees at several sites in a given polypeptide. Also, a given polypeptide may contain many types of modifications. Polypeptides may be branched, for example, as a result of ubiquitination, and they may be cyclic, with or without branching. Cyclic, branched, and branched cyclic polypeptides may result from posttranslation natural processes or may be made by synthetic methods. Modifications include acetylation, acylation, ADP-ribosylation, amidation, covalent attachment of flavin, covalent attachment of a heme moiety, covalent attachment of a nucleotide or nucleotide derivative, covalent attachment of a lipid or lipid derivative, covalent attachment of phosphatidylinositol, cross-linking, cyclization, disulfide bond formation, demethylation, formation of covalent cross-links, formation of cysteine, formation of pyroglutamate, formylation, gamma-carboxylation, glycosylation, GPI anchor formation, hydroxylation, iodination, methylation, myristoylation, oxidation, pegylation, proteolytic processing, phosphorylation, prenylation, racemization, selenoylation, sulfation, transfer-RNA mediated addition of amino acids to proteins such as arginylation, and ubiquitination. (See, for instance, PROTEINS - STRUCTURE AND MOLECULAR PROPERTIES, 2nd Ed., T. E. Creighton, W. H. Freeman and Company, New York (1993); POSTTRANSLATIONAL COVALENT MODIFICATION OF PROTEINS, B. C. Johnson, Ed., Academic Press, New York, pgs. 1-12 (1983); Seifter et al., Meth. Enzymol. 182:626-646 (1990); Rattan et al., Ann. N.Y. Acad. Sci. 663:48-62 (1992).)

[0037] "SEQ ID NO:X" refers to a polynucleotide sequence described, for example, in Tables 1A or 2, while "SEQ ID NO:Y" refers to a polypeptide sequence described in column 5 of Table 1. SEQ ID NO:X is identified by an integer specified in column 3 of Table 1. The polypeptide sequence SEQ ID NO:Y is a translated open reading frame (ORF) encoded by polynucleotide SEQ ID NO:X. "Clone ID NO:Z" refers to a cDNA clone described in column 1 of Table 1.

[0038] "A polypeptide having biological activity" refers to a polypeptide exhibiting activity similar to, but not necessarily identical to, an activity of a polypeptide of the present invention, including mature forms, as measured in a particular biological assay, with or without dose dependency. In the case where dose dependency does exist, it need not be identical to that of the polypeptide, but rather substantially similar to the dose-dependence in a given activity as compared to the polypeptide of the present invention (i.e., the candidate polypeptide will exhibit greater activity or not more than about 25-fold less and, preferably, not more than about tenfold less activity, and most preferably, not more than about three-fold less activity relative to the polypeptide of the present invention).

[0039] Table 1 summarizes some of the polynucleotides encompassed by the invention (including contig sequences (SEQ ID NO:X) and clones (Clone ID NO:Z) and further summarizes certain characteristics of these polynucleotides and the polypeptides encoded thereby.

Polynucleotides and Polypeptides

TABLE 1

Clone ID NO: Z	Contig ID:	SEQ ID NO: X	ORF (From-To)	AA SEQ ID NO: Y	Predicted Epitopes	Tissue Distribution Library code: count (see Table IV for Library Codes)	Cytologic Band	OMIM Disease Reference(s):
HOVCD34	396327	11	158 - 328	2186		H0428: 2		
HEBGD58	498281	12	3 - 107	2187	His-1 to Gly-19, Gly-29 to Tyr-35.	L0744: 5, L0758: 5, L0766: 4, L0803: 4, L0439: 4, L0759: 4, H0657: 3, H0341: 3, L0794: 3, H0648: 3, L0747: 3, L0752: 3, S0422: 2, L0598: 2, L0770: 2, L0809: 2, H0696: 2, L0742: 2, L0755: 2, H0716: 1, S0116: 1, H0638: 1, S0444: 1, S0360: 1, H0637: 1, H0580: 1, S0007: 1, L0586: 1, H0156: 1, H0599: 1, L0022: 1, H0042: 1, H0318: 1, H0327: 1, H0328: 1, H0615: 1, L0483: 1, S0112: 1, T0042: 1, H0560: 1, H0625: 1, L0769: 1, L0800: 1, L0764: 1, L0804: 1, L0375: 1,		

HETCD42	533532	13	18 - 947	2188	Glu-29 to Lys-37, Lys-110 to Ile-118, Arg-126 to Cys-135, Lys-157 to Gly-163, Gln-188 to Trp-201, Glu-269 to Thr-278.	L0805: 1, L0776: 1, L0791: 1, L0792: 1, L4501: 1, L0666: 1, L0663: 1, H0144: 1, L0352: 1, H0547: 1, H0519: 1, H0659: 1, H0660: 1, S0152: 1, H0521: 1, H0522: 1, S0028: 1, L0749: 1, L0756: 1, L0753: 1, L0757: 1, H0445: 1, L0588: 1, L0592: 1 and S0192: 1.	7q31.2- q31.3	150240, 164160, 180105, 190900, 222800, 246900, 602421, 602421, 602421
---------	--------	----	----------	------	--	--	------------------	--

	H0156: 2, H0036: 2, H0266: 2, H0179: 2, H0328: 2, H0615: 2, H0039: 2, H0622: 2, H0031: 2, H0090: 2, H0412: 2, H0623: 2, H0560: 2, H0625: 2, S0422: 2, L0770: 2, L0662: 2, L0768: 2, L0649: 2, L0803: 2, H0684: 2, S0152: 2, S0028: 2, S0206: 2, L0752: 2, L0757: 2, L0759: 2, S0031: 2, S0434: 2, L0362: 2, S0026: 2, S0196: 2, H0170: 1, H0556: 1, S0342: 1, S0134: 1, S0212: 1, H0661: 1, S0418: 1, S0420: 1, S0354: 1, S0358: 1, S0444: 1, H0580: 1, S0045: 1, S0132: 1, H0393: 1, L0717: 1, S0222: 1, H0614: 1, H0357: 1, H0587: 1, H0632: 1, H0270: 1, T0114: 1, H0250: 1, S0280: 1, S0474: 1, H0581: 1, H0374: 1,	
--	--	--

H0052: 1, H0232: 1,
H0050: 1, H0024: 1,
H0014: 1, H0373: 1,
H0051: 1, S0051: 1,
H0355: 1, H0375: 1,
H0594: 1, S0214: 1,
L0483: 1, H0553: 1,
H0644: 1, H0032: 1,
H0212: 1, S0036: 1,
H0038: 1, H0264: 1,
H0413: 1, H0056: 1,
T0042: 1, S0466: 1,
H0509: 1, H0207: 1,
H0641: 1, H0647: 1,
S0344: 1, L0638: 1,
L0637: 1, L0794: 1,
L0804: 1, L0805: 1,
L0656: 1, L0635: 1,
L0528: 1, L0664: 1,
L0665: 1, H0520: 1,
H0519: 1, H0593: 1,
H0435: 1, H0659: 1,
H0670: 1, H0672: 1,
H0651: 1, S0328: 1,
S0330: 1, L0602: 1,
H0518: 1, S0176: 1,
H0555: 1, S0390: 1,
L0750: 1, S0260: 1,
H0595: 1, L0599: 1,
L0608: 1, H0668: 1,

HTXKC18	535854	14	387 - 115	2189	Ser-57 to Gly-65, Gly-80 to His-86.	H0653: 1, S0192: 1, H0543: 1 and : 1. AR039: 65, AR096: 37, AR104: 37, AR089: 32, AR053: 27, AR052: 25, AR033: 22, AR060: 21, AR055: 21, AR061: 11 H0556: 1			
HLDRK20	553765	15	48 - 1214	2190	Thr-8 to Thr-19, Arg-108 to Ser-115, Ser-117 to Arg-128, Phe-143 to Tyr-155, Leu-171 to Arg-177, Asn-182 to Gly-187, Gly-195 to Ser-200, Arg-232 to Thr-248, Pro-287 to Arg-293.	L0665: 45, L0581: 42, H0509: 32, H0393: 15, H0574: 15, H0510: 15, L0362: 14, L0666: 11, H0658: 10, L0748: 10, H0014: 9, S0410: 8, H0331: 8, H0674: 8, S0438: 8, L0657: 8, H0689: 8, H0039: 7, L0659: 7, H0670: 7, S0044: 7, H0663: 6, H0622: 5, H0641: 5, S0360: 4, H0046: 4, H0246: 4, H0355: 4, H0169: 4, H0648: 4, L0749: 4, S0318: 3, L0662: 3, L0768: 3, L0775: 3, L0664: 3, H0682: 3, L0751: 3, H0506: 3, S0132: 2, H0441: 2, H0632: 2,	6p21.3	106300, 108800, 120290, 120290, 120810, 120820, 142857, 142858, 150270, 167250, 170261, 177900, 179450, 201910, 217000, 222100, 233100, 235200, 248611, 256550, 256550,	

21

HSYBX61	558708	17	3 - 515	2192	Arg-13 to Ala-20, Pro-27 to Arg-32, Lys-37 to Glu-62.	T0109: 1, H0428: 1, H0264: 1, L0764: 1, L0665: 1 and H0648: 1. H0428: 2, L0757: 2, H0170: 1, S0007: 1, H0028: 1, S0250: 1, H0252: 1, H0328: 1, H0124: 1, H0551: 1, L0439: 1 and L0750: 1.	18q12.1	176300, 176300, 176300, 176300
HELHC03	562745	18	623 - 1018	2193	Pro-105 to Trp-117.	AR089: 5, AR096: 4, AR060: 3, AR104: 3, AR061: 2, AR055: 2, AR033: 1, AR053: 1, AR039: 0 H0615: 2, H0346: 1, S0045: 1, H0156: 1, H0659: 1, L0748: 1 and H0444: 1.		
HOFMP70	585385	19	99 - 347	2194		H0415: 3	12q24.2- q24.3	100650, 100650, 142410, 142410, 142410, 160781, 181405
HSKNZ25	585675	20	357 - 641	2195	Gly-1 to Ala-9, Pro-42 to Ser-56, Leu-60 to Gly-67, Ala-86 to Asp-95.	S3012: 1		
HDPFK39	588869	21	1 - 720	2196	Pro-14 to Ser-19,	H0521: 4, H0415: 1	16p11.2	147781,

					Glu-55 to Phe-60, Asp-93 to Ser-98, Thr-138 to Tyr-144, Asn-155 to Phe-163, Arg-168 to Ser-175, Gln-205 to Lys-210, Phe-226 to Thr-233.	and H0522: 1.		172471, 182381
HL1AB07	638220	22	2 - 514	2197	Asn-18 to Arg-24, Arg-30 to Tyr-35, Glu-43 to Asp-51, Glu-56 to Gly-66, Leu-101 to Lys-107, Ala-156 to His-171.	L0747: 15, L0742: 12, L0748: 12, L0752: 12, L0757: 9, L0731: 8, L0754: 7, S0144: 6, L0755: 6, S0356: 5, S0406: 5, L0740: 5, H0046: 4, L0764: 4, H0543: 4, H0250: 3, H0040: 3, L0761: 3, L0646: 3, L0774: 3, L0806: 3, L0751: 3, L0745: 3, L0753: 3, L0759: 3, S0212: 2, H0661: 2, S0360: 2, S0280: 2, H0014: 2, H0039: 2, S0036: 2, H0163: 2, L0768: 2, L0775: 2, L0776: 2, L0379: 2, L0783: 2, L0809: 2, H0702: 2, S0126: 2, H0689: 2, H0658: 2, H0672: 2, L0439: 2, L0750: 2,	7q36	142335, 152427, 163729, 176450, 190605, 600510, 600725

L0756: 2, L0758: 2, L0605: 2, L0590: 2, S0011: 2, H0171: 1, H0556: 1, T0002: 1, S0040: 1, S0134: 1, S0218: 1, H0657: 1, H0341: 1, H0484: 1, H0306: 1, H0305: 1, H0125: 1, S0442: 1, S0358: 1, S0132: 1, H0351: 1, H0586: 1, H0574: 1, H0486: 1, H0013: 1, H0635: 1, H0575: 1, H0318: 1, H0052: 1, H0597: 1, H0041: 1, H0050: 1, L0163: 1, S0388: 1, S0051: 1, H0356: 1, H0266: 1, H0687: 1, S0312: 1, S0003: 1, H0252: 1, T0006: 1, L0142: 1, H0313: 1, L0055: 1, H0032: 1, H0169: 1, H0038: 1, T0041: 1, S0306: 1, S0438: 1, H0130: 1, H0641: 1, H0647: 1, S0344: 1, S0210: 1, L0763: 1, L0770: 1, L0769: 1, L0372: 1,	
--	--

HHGAS83	654868	23	115 - 393	2198				L0642: 1, L0645: 1, L0771: 1, L0648: 1, L0662: 1, L0364: 1, L0375: 1, L0655: 1, L0807: 1, L0657: 1, L0659: 1, L0532: 1, L0666: 1, L0664: 1, L0665: 1, H0144: 1, H0701: 1, H0711: 1, S0380: 1, H0521: 1, S0404: 1, S0206: 1, L0749: 1, L0777: 1, H0445: 1, L0599: 1, S0276: 1, H0423: 1 and H0506: 1.		
								L0744: 11, S0007: 10, 17 H0617: 10, L0747: 9, H0673: 8, H0597: 6, L0809: 6, H0683: 6, L0748: 6, L0754: 6, L0731: 6, L0622: 5, L0542: 5, L0755: 5, H0306: 4, H0402: 4, H0150: 4, H0188: 4, L0775: 4, L0751: 4, H0170: 3, H0255: 3, S0278: 3, T0006: 3, H0674: 3, L0774: 3, L0740: 3, L0745: 3, H0352: 3, H0657: 2,		

L0785: 2, H0661: 2, S0376: 2, S0360: 2, H0637: 2, H0333: 2, H0486: 2, H0309: 2, H0545: 2, H0123: 2, H0594: 2, H0032: 2, H0169: 2, S0142: 2, L0767: 2, L0776: 2, L0655: 2, L0529: 2, L0530: 2, L0666: 2, L0663: 2, L0664: 2, H0682: 2, L0750: 2, L0753: 2, L0757: 2, L0759: 2, L0588: 2, L0361: 2, S0114: 1, T0049: 1, S0134: 1, H0254: 1, S0358: 1, H0580: 1, H0339: 1, S0046: 1, S0140: 1, S6026: 1, S0300: 1, S6022: 1, H0441: 1, H0455: 1, H0643: 1, T0060: 1, L0021: 1, H0042: 1, H0618: 1, H0253: 1, N0011: 1, S0049: 1, H0327: 1, H0530: 1, H0546: 1, H0086: 1, H0009: 1, H0081: 1, H0050: 1, H0620: 1, H0024: 1,	
--	--

	H0057: 1, H0373: 1, S0051: 1, H0071: 1, H0687: 1, S0003: 1, S0214: 1, H0417: 1, H0031: 1, H0553: 1, H0111: 1, H0181: 1, H0606: 1, H0038: 1, H0616: 1, H0063: 1, H0087: 1, H0412: 1, H0059: 1, T0069: 1, T0004: 1, L0564: 1, S0440: 1, S0144: 1, S0344: 1, S0208: 1, L0598: 1, L0520: 1, L0763: 1, L0371: 1, L0770: 1, L0667: 1, L0764: 1, L0765: 1, L0771: 1, L0662: 1, L0375: 1, L0376: 1, L0378: 1, L0806: 1, L0658: 1, L0659: 1, L0518: 1, L0783: 1, L0788: 1, S0053: 1, H0691: 1, H0519: 1, S0126: 1, H0689: 1, H0660: 1, S0330: 1, H0696: 1, S0404: 1, H0576: 1, S3014: 1, S0206: 1, L0742: 1, L0743: 1, L0749: 1.
--	--

HTSGU37	704405	24	3 - 515	2199	Ile-1 to Thr-10, Pro-66 to Gly-77, Asp-85 to Gly-116.	L0752: 1, H0445: 1, L0589: 1, L0592: 1, L0608: 1, H0422: 1, H0008: 1 and H0293: 1. AR089: 7, AR060: 6, AR096: 5, AR104: 3, AR055: 3, AR061: 2 L0746: 2, H0592: 1, H0087: 1, L4501: 1, L0665: 1 and L0758: 1.	1p33-p32	120260, 120950, 120960, 138140, 178300, 187040, 246450, 600101, 600650, 600650, 600722, 600722	
H2LAN34	705692	25	2 - 211	2200		T0115: 1, L0662: 1, L0766: 1, L0659: 1, L0809: 1, L0748: 1 and H0444: 1.			
HPMBZ40	711500	26	402 - 590	2201	Gly-13 to Val-36.		2		
HLYPE52	732342	27	2 - 721	2202			16p13.3	141750, 141800, 141800, 141800, 141800, 141850, 141850, 141850, 141850,	

								141850, 156850, 186580, 191092, 600140, 600273, 601313, 601785
HTTEC47	745343	28	329 - 433	2203			AR096: 3, AR053: 2, AR060: 2, AR089: 2, AR033: 1, AR061: 1, AR055: 1, AR104: 0, AR039: 0 L0766: 2, S0354: 1, H0135: 1 and H0040: 1.	
HOFMO90	746416	29	113 - 391	2204	Arg-6 to Leu-12, Tyr-18 to Asp-25.	6p21.3		106300, 108800, 120290, 120290, 120810, 120820, 142857, 142858, 150270, 167250, 170261, 177900, 179450, 201910, 217000,

									222100, 233100, 235200, 248611, 256550, 256550, 600202, 600261, 601868, 602280, 602475
HCHND34	762806	30	99 - 164	2205				17p13.3	113721, 247200, 600059, 601545
							AR055: 937, AR033: 824, AR061: 791, AR104: 733, AR060: 647, AR053: 378, AR089: 278, AR039: 203, AR096: 149 H0484: 1		
HAMGI86	785328	31	388 - 609	2206			L0740: 2, S0356: 1, H0040: 1, H0616: 1 and H0560: 1.	3q23	106165, 110100, 117700, 117700, 150210, 169600, 180380, 180380, 180380, 203500, 276902, 601199,

HLWCN67	794213	32	326 - 691	2207	Tyr-1 to Trp-9, Thr-44 to Leu-49.	L0766: 7, L0794: 6, L0758: 6, L0665: 4, L0439: 4, L0779: 4, H0590: 3, H0328: 3, L0598: 3, L0763: 3, L0666: 3, H0648: 3, L0754: 3, L0362: 3, H0506: 3, H0657: 2, H0661: 2, S0438: 2, L0646: 2, L0803: 2, L0375: 2, L0806: 2, L0809: 2, L0438: 2, L0744: 2, L0740: 2, L0747: 2, L0756: 2, L0731: 2, S0434: 2, L0589: 2, H0713: 1, S0114: 1, H0583: 1, H0255: 1, H0669: 1, H0663: 1, S0222: 1, H0497: 1, L0021: 1, L0022: 1, H0036: 1, H0052: 1, L0163: 1, H0239: 1, H0179: 1, H0615: 1, H0092: 1, H0553: 1, H0163: 1, H0038: 1, H0100: 1, S0440: 1, S0422: 1,			601199, 601199, 601682
---------	--------	----	-----------	------	--------------------------------------	---	--	--	------------------------------

								S0426: 1, UNKWN: 1, L5575: 1, L0644: 1, L0764: 1, L0662: 1, L0651: 1, L0653: 1, L0655: 1, L0661: 1, L0657: 1, L0526: 1, L0783: 1, L0793: 1, L0664: 1, S0374: 1, H0682: 1, H0658: 1, S0328: 1, H0539: 1, S0454: 1, S0406: 1, S0028: 1, L0750: 1, L0752: 1, L0759: 1, S0260: 1, H0445: 1, L0596: 1 and L0597: 1.		
HOFAC09	806819	33	866 - 3	2208				H0415: 3 and H0414: 12 2.		
HRDEL61	824886	34	630 - 824	2209	Lys-1 to Trp-7, Pro-29 to His-41, Thr-48 to Arg-65.			H0124: 1		
HDPOR60	828176	35	2 - 1924	2210	Gln-35 to Ser-43, Thr-52 to Cys-57, Glu-70 to Lys-79, Trp-121 to Lys-126, Ser-152 to Ser-162, Ser-183 to Phe-191, Val-206 to Thr-213, Ile-217 to Asn-222, Arg-237 to Lys-246, Thr-279 to Cys-285,	AR052: 3, AR089: 2, AR039: 2, AR055: 2, AR033: 2, AR053: 2, AR060: 2, AR096: 1, AR061: 1, AR104: 1 H0651: 8, L0744: 7, L0748: 6, H0620: 4, S0360: 3, S0142: 3, L0755: 3, H0638: 2, H0052: 2, H0123: 2,				

33

								S0406: 1, H0436: 1, S0037: 1, L0747: 1, L0749: 1, L0779: 1, L0731: 1, S0031: 1 and S0434: 1.			
HPRTS71	828574	36	3 - 458	2211			Pro-117 to Lys-134, Gln-136 to Trp-143.	L0748: 3, H0486: 2, L0599: 2, S0212: 1, S0358: 1, H0596: 1, H0032: 1, H0212: 1, S0002: 1, L0769: 1, L0775: 1, L0527: 1, L0519: 1, S0122: 1, L0754: 1 and L0750: 1.			
HOHBI90	828862	37	1 - 417	2212		Pro-1 to Pro-9, Arg-81 to Glu-87, Gln-114 to Glu-119.		S0250: 2, H0435: 2, S0152: 1 and L0745: 1.	19q13.1	164731, 172400, 172400, 180901, 180901, 221770, 248600, 600918, 602716	
HOHAL47	828872	38	295 - 879	2213		Gly-17 to Leu-40, Ala-47 to Phe-63, Glu-66 to Val-71, Ile-75 to His-92, Glu-112 to Asn-119, Asp-122 to Arg-135, Asn-140 to Phe-152, Asn-160 to Arg-166.		L0741: 3, H0069: 1, S0250: 1, H0032: 1, H0212: 1, L0774: 1, H0522: 1 and L0756: 1.	8p22-p21.3	148370, 238600, 238600, 238600, 238600, 238600, 600143, 601385, 602629	

HYASE58	829298	39	2 - 694	2214	Phe-4 to Gln-10.	AR061: 13, AR089: 5, AR096: 5, AR033: 4, AR060: 4, AR052: 3, AR053: 3, AR055: 3, AR104: 3, AR039: 2 H0617: 11, L0748: 5, L0731: 4, H0181: 3, L0775: 3, H0670: 3, L0749: 3, H0656: 2, H0550: 2, H0083: 2, H0087: 2, H0658: 2, H0539: 2, L0747: 2, L0750: 2, H0341: 1, H0661: 1, H0402: 1, S0418: 1, S0360: 1, S0045: 1, H0393: 1, H0587: 1, H0333: 1, H0544: 1, H0009: 1, H0510: 1, H0688: 1, H0644: 1, H0606: 1, H0708: 1, S0366: 1, H0131: 1, L0770: 1, L0540: 1, L0783: 1, L0809: 1, L0789: 1, L0666: 1, L0665: 1, H0689: 1, H0682: 1, H0672: 1, L0743: 1, L0779: 1, L0759: 1, S0434: 1 and S0460: 1.		
HKAH95	829958	40	2 - 418	2215	Arg-13 to Trp-31,	L0766: 7, L0731: 5,		

Val-61 to Asn-67, Lys-87 to Arg-92, Leu-97 to Asp-109, Ser-129 to Asp-139.	H0542: 5, H0494: 3, L0526: 3, L0750: 3, L0752: 3, L0757: 3, L0588: 3, H0686: 2, T0049: 2, H0657: 2, H0341: 2, S0358: 2, T0008: 2, S0046: 2, L0471: 2, H0169: 2, L0763: 2, L0774: 2, H0519: 2, S0126: 2, S0027: 2, L0590: 2, H0423: 2, H0685: 1, H0650: 1, H0662: 1, H0504: 1, S0376: 1, S0360: 1, H0580: 1, H0431: 1, T0109: 1, H0069: 1, H0098: 1, T0048: 1, S0182: 1, H0023: 1, H0014: 1, H0617: 1, H0413: 1, H0129: 1, H0625: 1, H0132: 1, S0150: 1, H0130: 1, H0633: 1, L0520: 1, L0764: 1, L0648: 1, L0662: 1, L0775: 1, L0806: 1, L0379: 1, L0517: 1, L0540: 1, L0383: 1, L0809: 1, L0519: 1, H0520: 1, H0659: 1,
---	--

HTTIQ02	829981	41	2 - 391	2216	Ala-96 to Lys-111, Cys-117 to Cys-128.	H0658: 1, H0666: 1, S0328: 1, S0380: 1, S0032: 1, L0779: 1, L0758: 1, L0759: 1 and H0445: 1.			
HWACG91	830195	42	80 - 631	2217	Ser-2 to Arg-14, Ala-37 to Lys-45, Glu-60 to Leu-68, His-75 to Glu-82, Arg-92 to Ser-99, Gly-105 to Gln-110, Arg-119 to Phe-125.	H0581: 1 and H0521: 1.	6p12	180297, 230450, 263200, 601690	
HUFBX52	830497	43	2 - 1531	2218	Thr-1 to Leu-9, Ser-46 to Leu-56, Glu-117 to Lys-124, Pro-129 to Asp-135, Ala-144 to Gln-150, Gly-156 to Lys-162, Phe-182 to Pro-187, Pro-196 to Gln-201, Lys-217 to Asp-227.	H0124: 8, H0550: 5, H0428: 3, H0586: 2, H0575: 2, H0555: 2, H0294: 1, S0282: 1, H0427: 1, H0196: 1, H0052: 1, H0194: 1, H0086: 1, H0123: 1, H0509: 1, H0684: 1, L0748: 1, L0747: 1, L0756: 1, S0192: 1 and H0506: 1.			
HWLJE49	831453	44	1 - 315	2219	Tyr-34 to His-42, Leu-44 to Leu-49.	S0358: 1, S0376: 1 and H0413: 1.	1p36	118210, 120550, 120570, 120575, 121800,	

							130500, 133200, 155600, 171760, 171760, 185470, 211420, 230350, 255800, 601990, 602023, 602771
HLQBT44	832454	45	590 - 393	2220	Ala-23 to Asp-41.		
HSLGG58	833088	46	92 - 1450	2221	Gln-102 to Arg-109, Gly-177 to Pro-183, Pro-315 to Asn-323, Ser-361 to Cys-369, Ala-381 to Ser-391, Ser-419 to Ser-428.	11q13	102200, 106100, 131100, 131100, 131100, 133780, 147050, 153700, 161015, 164009, 168461, 168461, 168461, 180721, 180840, 191181, 193235,

								H0510: 1, S6028: 1, H0428: 1, H0424: 1, H0102: 1, H0494: 1, H0560: 1, L0770: 1, L0662: 1, L0774: 1, L0659: 1, L0526: 1, L0518: 1, L0528: 1, L0787: 1, L0666: 1, L0663: 1, H0693: 1, H0658: 1, S0152: 1, S0028: 1, L0439: 1, L0745: 1, L0755: 1, L0758: 1 and L0601: 1.		209901, 232600, 259700, 259770, 600045, 600319, 600528, 601884
HCHBQ33	840756	47	148 - 480	2222	Arg-8 to Gln-19, Arg-25 to Lys-38.			H0483: 1, S0045: 1, S0046: 1, H0486: 1, H0012: 1, H0355: 1, S0364: 1, H0087: 1, H0413: 1, H0366: 1, S0028: 1, L0601: 1 and H0352: 1.	19p	
HDTMK30	840862	48	36 - 353	2223	Arg-2 to Pro-12, Lys-32 to Asn-37, His-75 to Asn-82.			H0486: 1, H0123: 1 and L0756: 1.	7q11.23	116860, 129900, 233700, 600079
HDPFX64	841088	49	320 - 1096	2224				L0757: 6, L0752: 5, L0439: 4, S0150: 2, L0774: 2, S3014: 2, L0747: 2, L0750: 2, S0276: 2, S0212: 1, S0007: 1, H0574: 1.	6pter-q12	

								H0581: 1, H0068: 1, S0036: 1, H0135: 1, T0067: 1, L0065: 1, H0529: 1, H0026: 1, L0762: 1, L0773: 1, L0521: 1, L0766: 1, S0052: 1, H0521: 1, L0748: 1, L0749: 1, L0731: 1, L0759: 1, L0485: 1, L0593: 1 and H0542: 1.			
HODFG71	843485	50	1013 - 951	2225	Asp-1 to Glu-6.			AR089: 3, AR060: 2, AR053: 2, AR096: 2, AR061: 2, AR039: 1, AR033: 1, AR055: 0, AR104: 0 H0615: 1			
HCE3I65	844534	51	2 - 244	2226				S0358: 1, H0052: 1, H0375: 1, H0087: 1, H0380: 1, H0435: 1, H0521: 1, S0390: 1 and L0366: 1.			
HSAVH65	847355	52	2 - 397	2227	Ser-90 to His-96, Arg-127 to Gln-132.			S0114: 2, H0686: 1, L0769: 1, L0644: 1, L0662: 1, L0774: 1, L0666: 1, H0659: 1, L0750: 1 and S0436: 1.			
HBXFT41	847647	53	707 - 817	2228	Glu-14 to Gly-23.			AR096: 2, AR089: 2, AR061: 1, AR039: 0, AR060: 0, AR055: 0,	19p13.3	108725, 120700, 133171,	

							AR033: 0, AR104: 0 L0717: 1, H0438: 1, H0090: 1 and L0749: 1.		136836, 145981, 147141, 164953, 188070, 600957, 601238, 601846, 602216, 602477
HBMCM38	847821	54	373 - 290	2229			L0717: 1 and H0421: 1.		
HACBO42	849064	55	3 - 86	2230	Arg-19 to Pro-25.		L0776: 5, L0439: 4, L0805: 3, H0009: 2, L0438: 2, H0580: 1, S0280: 1, S0346: 1, H0674: 1, L0774: 1, L0384: 1, L0747: 1, L0786: 1, L0780: 1, L0752: 1, L0753: 1, S0031: 1, L0608: 1, S0412: 1 and L0698: 1.		
HODBF86	859572	56	276 - 338	2231			H0328: 2 and H0509: 1.		
HOABP90	859622	57	628 - 735	2232	Asp-23 to Asn-30.		AR089: 2, AR039: 2, AR096: 1, AR053: 1, AR104: 1, AR060: 1, AR061: 0, AR055: 0, AR033: 0 H0252: 1		

HE8UE42	862010	58	3 - 1610	2233	Glu-146 to Pro-151, Ala-231 to Ser-237, Asp-317 to Pro-322, Lys-365 to Gly-371, Phe-459 to Pro-464.	AR089: 8, AR060: 7, AR104: 5, AR096: 4, AR061: 3, AR055: 3 H0659: 5, L0740: 5, L0662: 4, L0771: 3, H0547: 3, H0521: 3, L0759: 3, L0362: 3, H0013: 2, H0597: 2, H0046: 2, H0083: 2, S0214: 2, H0674: 2, H0494: 2, L0517: 2, H0682: 2, L0747: 2, L0779: 2, S0434: 2, H0685: 1, H0583: 1, H0661: 1, H0638: 1, S0420: 1, S0360: 1, H0580: 1, H0438: 1, H0497: 1, H0599: 1, S0010: 1, H0581: 1, H0545: 1, H0457: 1, H0563: 1, L0163: 1, L0055: 1, H0673: 1, H0212: 1, H0591: 1, H0038: 1, H0616: 1, H0488: 1, S0142: 1, S0344: 1, L0763: 1, L0770: 1, L0767: 1, L0766: 1, L0776: 1, L0659: 1, L0782: 1, L0545: 1, H0144: 1,		
---------	--------	----	----------	------	---	---	--	--

43

HSSDM07	863515	60	221 - 1090	2235	Gln-1 to Ala-6, Arg-18 to His-24, Ala-80 to Val-88,	H0545: 1, L0471: 1, H0014: 1, T0023: 1, H0181: 1, H0606: 1, H0673: 1, S0366: 1, H0316: 1, H0163: 1, H0087: 1, H0625: 1, S0438: 1, H0633: 1, S0210: 1, L0598: 1, H0517: 1, L0520: 1, L0371: 1, L0772: 1, L0764: 1, L0521: 1, L0549: 1, L0803: 1, L0776: 1, L0540: 1, L0783: 1, L0809: 1, L0529: 1, L0663: 1, L0665: 1, S0374: 1, H0593: 1, S0126: 1, H0711: 1, H0658: 1, H0660: 1, H0648: 1, H0672: 1, S0378: 1, S0404: 1, S0406: 1, S0432: 1, S3014: 1, L0740: 1, L0752: 1, L0590: 1, L0599: 1, H0668: 1, S0026: 1, H0423: 1, H0422: 1, S0424: 1 and H0712: 1.		
						L0803: 3, H0556: 2, L0769: 2, L0800: 2, H0265: 1, S0134: 1,		

						Asp-97 to Asp-103, Arg-125 to Tyr-132, Arg-155 to Leu-161, Ser-167 to Asn-172, Gln-182 to Lys-187, Pro-206 to Thr-212, Glu-218 to Ser-228, Ser-236 to Pro-245.	S0358: 1, H0642: 1, H0575: 1, H0135: 1, L0809: 1, L0789: 1, S0330: 1, L0750: 1 and L0777: 1.		
HBCBW52	866444	61	1101 - 1352	2236		Phe-31 to Gln-36, Glu-51 to Ile-79.	L0596: 5, S0114: 2, H0370: 1, H0012: 1, H0620: 1 and S0038: 1.		
HOGAS18	867969	62	352 - 552	2237		Pro-1 to Ser-10, Leu-16 to Gly-21, Thr-43 to Thr-55, Lys-60 to Gly-67.	AR089: 6, AR060: 5, AR039: 4, AR096: 4, AR033: 2, AR055: 2, AR104: 1, AR061: 1, AR053: 0 H0435: 2, H0395: 1 and H0402: 1.		
HHSDL18	869701	63	494 - 628	2238			L0471: 1, S0051: 1, H0040: 1 and L0747: 1.		
HTFMS34	870486	64	2 - 460	2239		Tyr-1 to Trp-6.	L0511: 11, L0499: 6, L0509: 6, L0507: 5, L0502: 5, L0500: 5, L0508: 5, L0751: 5, L0493: 4, L0514: 4, L0504: 3, L0510: 3, L0809: 3, L0748: 3, L0505: 2, L0805: 2, L0515: 2, H0659: 2, H0670: 2, L0752: 2,		

HLD0G81	874506	65	1232 - 798	2240	Ile-81 to Arg-91.	S0424: 2, H0431: 1, H0150: 1, H0039: 1, H0674: 1, H0087: 1, T0041: 1, L0800: 1, L0768: 1, L0789: 1, L0664: 1 and L0749: 1.	1q22-q25	104770, 107300, 107670, 110700, 131210, 136132, 145001, 146790, 150292, 159440, 159440, 159440, 173610, 186780, 191030, 191315, 208250, 233710, 600923, 600995, 601412, 601518, 601652, 602491
---------	--------	----	------------	------	-------------------	---	----------	---

HTXQF81	874608	66	2 - 628	2241	Pro-3 to Arg-8, Gly-34 to Thr-53, Asp-60 to Ser-65, Phe-76 to Lys-81.	L0751: 13, L0771: 10, L0748: 9, L0601: 7, S0356: 6, L0731: 6, L0758: 6, L0769: 4, L0565: 4, L0747: 4, L0756: 4, L0596: 4, H0598: 3, L0766: 3, S0052: 3, S0206: 3, L0750: 3, H0542: 3, H0294: 2, H0657: 2, L0785: 2, S0418: 2, S0358: 2, S0360: 2, H0586: 2, H0587: 2, H0575: 2, H0081: 2, H0620: 2, H0083: 2, H0271: 2, H0622: 2, H0617: 2, H0494: 2, S0142: 2, L0374: 2, L0521: 2, L0381: 2, L0775: 2, L0776: 2, L0659: 2, S0027: 2, L0777: 2, L0759: 2, H0445: 2, L0591: 2, L0604: 2, H0556: 1, T0002: 1, H0222: 1, S0040: 1, H0295: 1, S0218: 1, H0341: 1, S0180: 1, S0212: 1, H0484: 1, H0241: 1, S0420: 1, S0354: 1,	L0751: 13, L0771: 10, Xpl1.23	300047, 300071, 300110, 300600, 301000, 301000, 301830, 309470, 309500, 309610, 309850, 311050, 312060
---------	--------	----	---------	------	--	--	----------------------------------	--

HCRNG90	874787	67	87 - 947	2242	Thr-5 to Gly-11, Arg-63 to Lys-73, Gln-92 to Glu-98, Ala-106 to Gly-112.	AR061: 56, AR055: 46, AR104: 43, AR096: 27, AR060: 25, AR089: 17 S0356: 4, L0809: 4, H0551: 2, S0342: 1, S0212: 1, H0544: 1, H0046: 1, L0803: 1, L0774: 1, S0126: 1 and S0152: 1.	6q14-q21	120110, 121014, 136550, 203310, 269920, 601666, 602772
HPWCL64	874891	68	2 - 601	2243	Glu-26 to Ser-33, Thr-82 to Phe-90, Met-107 to Asn- 114, Thr-125 to Glu-131, His-175 to Asp-180.	L0766: 7, L0771: 4, L0752: 4, L0438: 2, L0756: 2, L0777: 2, L0780: 2, H0341: 1, T0115: 1, T0110: 1, L0776: 1, L0783: 1, L0663: 1, S0044: 1, L0744: 1, L0439: 1, L0754: 1, L0750: 1 and L0779: 1.		
HWLMV62	874930	69	2 - 463	2244		H0140: 1, S0116: 1, S0376: 1, S0360: 1, L0695: 1, H0412: 1, H0641: 1, L0662: 1, L0803: 1, L0774: 1, L0527: 1, L0659: 1, L0663: 1, L0664: 1, L0665: 1, H0682: 1, H0435: 1, H0648: 1, L0743: 1, L0731: 1,		

H2MAC06	874931	70	2 - 763	2245	<p>S0434: 1, L0596: 1 and L0362: 1.</p> <p>AR096: 102, AR055: 51, AR089: 46, AR060: 30, AR104: 29, AR061: 19</p> <p>S0406: 23, L0362: 22, S0410: 13, H0593: 12, H0674: 10, S0434: 9, L0764: 8, S0358: 7, L0646: 7, H0506: 6, H0509: 5, L0809: 5, H0435: 5, S0376: 4, L0765: 4, L0382: 4, L0751: 4, H0686: 3, H0252: 3, H0169: 3, H0670: 3, S0330: 3, H0656: 2, S0116: 2, S0132: 2, H0581: 2, H0596: 2, S0314: 2, T0023: 2, H0059: 2, S0440: 2, L0372: 2, L0381: 2, L0659: 2, L0666: 2, H0690: 2, L0750: 2, L0596: 2, L0601: 2, H0171: 1, S0430: 1, H0650: 1, H0663: 1, H0306: 1, S0360: 1, T0104: 1, T0071: 1, H0421: 1.</p>		
---------	--------	----	---------	------	--	--	--

							H0251: 1, H0263: 1, H0204: 1, H0231: 1, H0039: 1, H0622: 1, L0194: 1, L0483: 1, S0368: 1, H0032: 1, H0090: 1, H0040: 1, H0488: 1, H0494: 1, S0352: 1, H0646: 1, L0762: 1, L0800: 1, L0553: 1, L0648: 1, L0775: 1, L0376: 1, L0653: 1, L0540: 1, L0783: 1, L0664: 1, S0053: 1, S0374: 1, H0682: 1, H0684: 1, H0658: 1, H0648: 1, H0672: 1, S0328: 1, S0152: 1, S0432: 1, S0436: 1 and L0600: 1.		
HWLRF06	875093	71	2 - 385	2246	Gly-2 to Gly-7, Glu-9 to Gln-16, Cys-24 to Gly-30, Ala-35 to Ala-45, Ala-55 to Ala-60, Cys-79 to Leu-90, Asp-95 to Asp-103.		S0212: 1 and S0360: 1.		
HODDO41	875352	72	323 - 487	2247	Gln-29 to Asn-42.		H0328: 2		
HCHMQ74	875371	73	3 - 440	2248	Pro-6 to Leu-25, Ser-34 to Arg-53, Pro-71 to Gly-81,		S0330: 2, L0748: 2, H0484: 1, T0114: 1 and L0764: 1.		

HT3AI55	875682	74	1 - 504	2249	Ser-83 to Glu-94.	L0749: 3, S0356: 2, L0766: 2, H0170: 1, H0140: 1, L0770: 1, L0662: 1, L0659: 1, H0682: 1, L0752: 1, L0731: 1, L0758: 1 and H0542: 1.		
HMVBD68	876052	75	130 - 276	2250		L0745: 6, S0360: 4, S0440: 2, H0341: 1, S0212: 1, L0717: 1, H0587: 1, H0497: 1, H0574: 1, H0687: 1, H0428: 1, S0422: 1, L0667: 1, L0645: 1, L0662: 1, L0768: 1, L0649: 1, L0518: 1, H0435: 1, S0380: 1, H0518: 1, L0754: 1, L0746: 1, S0434: 1, L0592: 1 and S0424: 1.		
HOCTA74	876487	76	65 - 292	2251	Lys-1 to Ser-7.	L0748: 5, L0764: 4, L0774: 4, L0758: 3, L0662: 2, L0751: 2, L0608: 2, L0760: 1, S0444: 1, H0331: 1, H0263: 1, H0674: 1, L0770: 1, L0649: 1, L0803: 1, L0775: 1, L0809: 1, L0666: 1,		

							L0663: 1, L0665: 1, S0374: 1, L0565: 1, H0648: 1, L0752: 1, L0596: 1, L0361: 1, S0026: 1 and H0506: 1.			
H1SET05	876686	77	433 - 909	2252		Ala-1 to Thr-8, Ala-15 to Pro-23, Pro-68 to Gly-78, Ser-82 to Gly-93, Gly-118 to Ala-135.	L0761: 2, L0800: 1, L0773: 1, L0803: 1 and H0539: 1.			
HCRQM22	876696	78	3 - 332	2253		Arg-1 to Arg-7, Gly-72 to Asp-78, Lys-83 to Gln-90.	S0356: 1, H0318: 1, H0038: 1 and H0040: 1.	12p13	103950, 120580, 131440, 139130, 142680, 176260, 190450, 200990, 216950, 600228, 600414, 600618, 602096	
HLHTC92	877310	79	143 - 478	2254		Met-2 to Leu-12, Ser-16 to Asp-23, Gly-38 to Lys-45.	H0208: 1, H0263: 1, H0412: 1 and L0754: 1.			
H2CAA49	879484	80	1426 - 203	2255		Lys-44 to His-50, Thr-110 to Pro-116, Lys-178 to Gln-183, Pro-196 to Lys-205,				

[illegible]

HOFMO23	882466	82	5 - 502	2257	Asn-40 to Val-45.	H0539: 1, S0390: 1, S0028: 1, L0747: 1, L0758: 1 and S0424: 1. AR089: 2, AR096: 1, 7 AR060: 1, AR039: 0, AR061: 0, AR033: 0, AR104: 0 H0415: 2			
HNTNP58	882787	83	2162 - 2383	2258		AR039: 105, AR096: 91, AR089: 70, AR104: 48, AR033: 48, AR053: 46, AR060: 43, AR055: 18, AR061: 16 S0444: 5, H0436: 5, L0521: 3, H0684: 3, H0659: 3, L0758: 3, S0410: 2, H0250: 2, S0049: 2, L0471: 2, H0266: 2, H0625: 2, S0440: 2, L0805: 2, H0690: 2, L0747: 2, L0779: 2, S0026: 2, H0422: 2, H0170: 1, H0265: 1, H0556: 1, H0686: 1, S0040: 1, S0342: 1, H0294: 1, H0341: 1, H0664: 1, H0638: 1, S0007: 1, S0046: 1, H0351: 1, H0559: 1, H0427: 1,			

HOFNY28	888480	84	3 - 479	2259			H0421: 1, L0738: 1, H0545: 1, H0083: 1, H0628: 1, H0321: 1, H0412: 1, T0069: 1, H0202: 1, H0494: 1, S0422: 1, L0763: 1, L0769: 1, L0772: 1, L0764: 1, L0657: 1, L0783: 1, L0809: 1, L0519: 1, L0665: 1, H0698: 1, H0691: 1, H0724: 1, H0520: 1, H0547: 1, S0126: 1, H0670: 1, H0660: 1, H0666: 1, H0648: 1, H0134: 1, S0028: 1, L0756: 1, L0752: 1, S0434: 1, L0589: 1, H0136: 1, S0194: 1, S0276: 1, H0543: 1 and H0423: 1.			108985, 186921, 602092
HE8MQ01	889128	85	2612 - 2478	2260	Ser-8 to Cys-14, Trp-34 to Phe-45.		AR053: 6, AR089: 6, AR039: 6, AR060: 5, AR104: 4, AR096: 4, AR033: 3, AR055: 3, AR061: 2 H0415: 1 H0729: 1, H0392: 1, H0013: 1, H0318: 1, H0009: 1, H0328: 1,			

HE2RG21	891139	86	2 - 553	2261	Arg-1 to Asn-14, Lys-47 to Glu-53, Ser-59 to Ser-70, Gln-82 to Gly-93, Glu-100 to Glu-105, Gly-123 to Ser-129, Phe-164 to Lys-173.	H0615: 1, T0041: 1, L0662: 1, L0768: 1, L0522: 1, H0436: 1, H0444: 1 and S0308: 1.		
HHENW77	894855	87	3 - 341	2262		AR033: 8, AR104: 6, AR089: 3, AR039: 3, AR060: 2, AR061: 2, AR096: 2, AR053: 0, AR055: 0 H0539: 9, H0052: 5, T0010: 4, L0439: 4, L0769: 3, L0443: 2, H0046: 2, L0456: 2, L0770: 2, L5574: 2, L0803: 2, L0664: 2, L0438: 2, L0751: 2, L0747: 2, S0436: 2, H0542: 2, H0717: 1, S0010: 1, H0744: 1, H0562: 1, H0012: 1, S0388: 1, H0510: 1, H0418: 1, H0617: 1, S0038: 1, L0351: 1,		

							L0762: 1, L0631: 1, L0638: 1, L5565: 1, L0764: 1, L0794: 1, L0649: 1, L0774: 1, L0806: 1, L0655: 1, L0659: 1, L0635: 1, L0382: 1, L0788: 1, L0666: 1, H0520: 1, H0658: 1, H0670: 1, H0660: 1, H0648: 1, H0696: 1, L0742: 1, L0750: 1, L0780: 1, L0752: 1, H0445: 1, H0543: 1, H0423: 1 and H0422: 1.		
HOFNU55	897344	88	705 - 517	2263	Phe-58 to Ala-63.	H0415: 2			
HE8TE40	897862	89	86 - 1165	2264	Ser-50 to Thr-57, Pro-89 to Arg-96, Thr-128 to Glu-137, Cys-150 to Asp-155, Arg-176 to Lys-184, Glu-186 to Cys-201, Ala-238 to Ala-247, Pro-270 to Pro-277, Thr-283 to Thr-295, Leu-329 to Arg-338, Gln-345 to Arg-350.	L0803: 8, S0408: 4, L0804: 3, L0805: 3, L0766: 2, L0779: 2, S0114: 1, H0341: 1, H0662: 1, S0222: 1, H0486: 1, H0013: 1, H0581: 1, H0615: 1, H0038: 1, S0440: 1, L0800: 1, L0521: 1, L0794: 1, L0774: 1, L0806: 1, L0526: 1, L0789: 1, L0790: 1, L0792: 1, L4501: 1, L0663: 1, H0519: 1,			

HNTCH73	900546	90	114 - 1418	2265	Ala-69 to Ser-77, Arg-95 to Lys-102, Gln-117 to Gln-125, Tyr-133 to Arg-140, Pro-157 to Ser-163, Glu-190 to Phe-202, Trp-251 to Asn-258, Gln-270 to Gln-277, Leu-285 to Gly-290, Thr-312 to Arg-337.	S0380: 1, H0696: 1, L0612: 1, L0745: 1, L0756: 1, L0780: 1, L0752: 1 and H0543: 1. AR089: 3, AR096: 2, AR060: 1, AR033: 1, AR104: 1, AR061: 1, AR055: 0, AR039: 0, AR053: 0 H0686: 4, H0574: 3, H0412: 3, S0045: 2, H0024: 2, L0777: 2, L0759: 2, L0603: 2, H0664: 1, S0418: 1, S0358: 1, S0360: 1, H0208: 1, S0046: 1, H0619: 1, H0549: 1, H0632: 1, H0485: 1, H0309: 1, H0085: 1, H0235: 1, L0471: 1, H0620: 1, H0083: 1, S0028: 1, H0622: 1, S0366: 1, S0464: 1, L0065: 1, L0638: 1, L0637: 1, L0764: 1, L0773: 1, L0768: 1, L0774: 1, L0659: 1, H0144: 1, S0374: 1, L0438: 1, H0547: 1, H0519: 1, S0406: 1,	14q22-q23	107970, 112262, 182600, 182870, 182870, 182870, 232700, 602086
---------	--------	----	------------	------	---	--	-----------	---

							H0627: 1, H0631: 1, L0749: 1, L0779: 1, S0026: 1, H0136: 1 and S0194: 1.			
HHFBY53	902534	91	3 - 299	2266	Lys-9 to Ser-15, Pro-29 to Ala-35.		AR060: 3, AR033: 1, AR089: 1, AR104: 1, AR096: 0, AR055: 0, AR039: 0, AR061: 0 S0360: 3, H0670: 3, H0556: 2, H0292: 2, H0686: 1, H0685: 1, S0134: 1, S0116: 1, H0662: 1, H0640: 1, S0300: 1, H0586: 1, H0642: 1, L0622: 1, L0586: 1, H0253: 1, H0050: 1, H0057: 1, T0006: 1, L0653: 1, L0657: 1, L0659: 1, L0787: 1, L0666: 1, L0663: 1, H0547: 1, H0659: 1, H0648: 1, H0436: 1, L0748: 1, L0362: 1, L0361: 1, H0653: 1, H0542: 1, H0423: 1 and H0422: 1.	Xq13.1	304040, 305100, 305450, 309605, 312760, 314250, 314580	
HDPIE44	904763	92	1 - 2418	2267	Pro-1 to Arg-13, Pro-71 to Ser-77, Asn-107 to Ser-122, Val-150 to Pro-155,		AR052: 2, AR033: 2, AR096: 2, AR053: 1, AR060: 1, AR104: 1, AR055: 1, AR089: 1,			

					Ser-235 to Lys-241, Arg-349 to Phe-360, Thr-363 to Glu-376, Gln-438 to Thr-443, Leu-466 to Ala-472, Lys-475 to Thr-484, Ser-511 to Val-516, Glu-544 to Ser-550, Tyr-627 to Thr-632, Arg-650 to Lys-658, Asp-683 to Asn- 688, Glu-740 to Glu-746, Tyr-755 to Glu-760.	AR061: 0, AR039: 0 S0358: 3, H0622: 2, H0553: 2, H0090: 2, L0769: 2, L0794: 2, H0547: 2, S0126: 2, L0747: 2, H0265: 1, S0418: 1, H0208: 1, S0045: 1, H0486: 1, H0052: 1, H0046: 1, H0024: 1, H0051: 1, H0375: 1, H0634: 1, H0488: 1, T0042: 1, H0494: 1, H0561: 1, S0438: 1, H0538: 1, L0800: 1, L0803: 1, L0804: 1, L0805: 1, L4501: 1, H0521: 1, H0555: 1, L0779: 1, S0436: 1 and H0506: 1.		
HHSAX10	904783	93	3 - 683	2268	Lys-33 to Arg-46, Met-141 to His-150, Thr-205 to Thr-211, Arg-218 to Ser-226.	AR033: 35, AR104: 29, AR089: 13, AR096: 11, AR060: 9, AR052: 8, AR053: 7, AR055: 6, AR039: 5, AR061: 2 L0745: 7, L0756: 7, L0598: 6, S0346: 5, S0036: 5, L0769: 4, L0777: 4, L0731: 4, S0010: 3, H0052: 3,		

62

63

									H0547: 1, H0684: 1, H0659: 1, H0648: 1, H0539: 1, S0152: 1, S0028: 1, L0756: 1, L0779: 1, L0731: 1, L0758: 1, S0434: 1, S0436: 1, L0362: 1, H0542: 1 and H0422: 1.			
HOFNG28	908746	95	3 - 401	2270	Gln-76 to Asp-82, Lys-96 to Gln-103.				AR052: 2, AR089: 2, AR055: 1, AR060: 1, AR096: 1, AR033: 1, AR061: 1, AR104: 1, AR053: 0, AR039: 0 H0415: 2			
HOF0B27	911947	96	565 - 1491	2271	Cys-1 to Cys-15, Arg-24 to Gly-31, Lys-37 to Gln-47, Gln-85 to Lys-92, Tyr-102 to Gly-107, Asp-166 to Lys-181, Phe-216 to His-229, Gln-248 to Phe-254, Arg-260 to Cys-267, Ser-285 to Arg-296.				AR053: 2, AR089: 2, AR055: 1, AR060: 1, AR096: 1, AR061: 0, AR039: 0, AR033: 0, AR104: 0 L0758: 6, H0620: 4, L0769: 4, L0777: 4, H0556: 3, S0420: 2, L0770: 2, L0803: 2, L0776: 2, L0659: 2, L0666: 2, S0374: 2, L0748: 2, L0591: 2, H0265: 1, H0685: 1, S0134: 1, H0484: 1, S0354: 1, S0360: 1, S0408: 1, H0580: 1,			

HHBHJ45	913831	97	2 - 1498	2272	Ala-65 to Lys-73, Phe-135 to Arg-140, Glu-174 to Pro-184, Glu-207 to Ala-212, Lys-220 to Asp-231, Glu-236 to Lys-252, Glu-268 to Asn-286, Leu-378 to Ser-384, Gln-421 to Gly-437, Leu-448 to Asp-453, Glu-485 to Trp-495.	L0415: 1, H0587: 1, H0599: 1, H0053: 1, H0052: 1, H0081: 1, H0288: 1, H0428: 1, H0059: 1, H0633: 1, L0766: 1, L0650: 1, L0805: 1, L0655: 1, L0606: 1, L0791: 1, L0664: 1, H0144: 1, L0438: 1, H0547: 1, H0690: 1, H0682: 1, S0378: 1, H0521: 1, L0439: 1, L0740: 1, L0751: 1, L0755: 1, L0595: 1, H0665: 1, S0424: 1 and H0677: 1, L0775: 6, H0659: 5, L0438: 4, L0747: 4, S0408: 3, L0439: 3, H0040: 2, L0509: 2, L0513: 2, L0751: 2, L0756: 2, L0755: 2, L0596: 2, L0362: 2, S0040: 1, H0341: 1, S0354: 1, H0411: 1, H0497: 1, S0049: 1, H0373: 1, T0010: 1, S0214: 1, S0366: 1, H0413: 1, L0769: 1, L0772: 1, L0764: 1,	2p14-p16	126600, 126600, 136435, 160980, 203800, 600678
---------	--------	----	----------	------	---	---	----------	---

HIIPDV90	914163	98	1188 - 1045	2273	Asn-21 to Lys-39, Leu-43 to Lys-48.	L0626: 1, L0768: 1, L0387: 1, L0766: 1, L0498: 1, L0650: 1, L0774: 1, L0375: 1, L0508: 1, L0655: 1, L0657: 1, L0783: 1, L0663: 1, L0352: 1, H0547: 1, H0593: 1, H0648: 1, S0136: 1, H0522: 1, H0696: 1, L0750: 1, L0758: 1, S0434: 1, L0604: 1 and H0423: 1.		
						AR096: 7, AR089: 6, AR060: 5, AR053: 4, AR104: 4, AR033: 3, AR055: 3, AR061: 2 L0777: 13, L0766: 6, L0803: 4, L0752: 4, L0769: 3, L0794: 3, L0747: 3, L0755: 3, L0805: 2, L0776: 2, L0655: 2, L0659: 2, H0547: 2, L0759: 2, L0596: 2, H0650: 1, S0360: 1, S0010: 1, H0150: 1, H0024: 1, H0051: 1, H0553: 1, H0090: 1, H0412: 1, L0761: 1, L0771: 1.		

HWMMQ47	915068	99	2 - 232	2274	Gly-41 to Gly-53, Gly-65 to Arg-77.	L0363: 1, L0804: 1, H0519: 1, S0122: 1, H0435: 1, H0658: 1, H0648: 1, L0740: 1, L0750: 1, L0757: 1, H0543: 1 and H0423: 1. S0444: 5, S0358: 4, S0410: 4, S0406: 4, L0759: 4, L0604: 4, H0686: 3, H0728: 3, H0083: 3, H0659: 3, H0658: 3, L0747: 3, L0581: 3, H0657: 2, H0341: 2, H0484: 2, H0734: 2, H0550: 2, S0222: 2, H0052: 2, T0006: 2, S0364: 2, H0038: 2, H0413: 2, S0422: 2, L0768: 2, L0774: 2, L0775: 2, L0783: 2, H0690: 2, H0670: 2, H0648: 2, S0380: 2, L0757: 2, L0758: 2, L0588: 2, L0608: 2, L0601: 2, S0026: 2, H0170: 1, S0114: 1, H0381: 1, S0282: 1, H0638: 1, S0442: 1, S0360: 1, H0730: 1, H0735: 1,			
---------	--------	----	---------	------	--	---	--	--	--

								600243, 600792, 601369, 602086, 602279, 602279
HODGH45	917394	101	567 - 941	2276	Arg-7 to Arg-12, Pro-77 to Asp-82.	H0615: 2 and S0052: 1.		
HWLKE58	917716	102	3 - 536	2277	Pro-1 to Val-11, Asp-25 to Glu-34, Arg-117 to Gln-122, Thr-147 to Arg-152, Glu-160 to Cys-172.	L0731: 7, L0605: 6, L0766: 4, L0655: 4, L0659: 4, L0756: 4, L0803: 3, H0648: 3, L0777: 3, S0358: 2, S0408: 2, L0021: 2, H0014: 2, T0010: 2, L0143: 2, H0641: 2, L0638: 2, L0662: 2, L0794: 2, L0776: 2, L0657: 2, L0809: 2, L0666: 2, L0663: 2, L0751: 2, L0755: 2, L0758: 2, L0588: 2, H0543: 2, H0170: 1, H0657: 1, S0212: 1, H0661: 1, H0663: 1, S0420: 1, S0360: 1, L0717: 1, L0586: 1, L0105: 1, H0318: 1, H0581: 1, H0052: 1, H0309: 1, L0157: 1,		

						L0471: 1, H0024: 1, H0354: 1, S0003: 1, H0328: 1, H0615: 1, H0169: 1, H0163: 1, H0090: 1, H0272: 1, T0041: 1, S0440: 1, S0142: 1, S0210: 1, L0372: 1, L0645: 1, L0764: 1, L0651: 1, L0656: 1, L0789: 1, L0665: 1, S0126: 1, H0682: 1, H0435: 1, H0659: 1, S0380: 1, H0518: 1, H0696: 1, L0439: 1, L0740: 1, L0746: 1, L0750: 1, L0779: 1, L0752: 1 and S0260: 1.			
HRADL40	919433	103	1 - 942	2278	Phe-1 to Arg-7, Arg-40 to Gly-46, Lys-96 to Ser-102, Cys-126 to Ala-131, Asp-260 to Leu-265, Arg-308 to Gly-314.	H0424: 5, H0550: 3, L0769: 3, L0601: 3, S0408: 2, H0592: 2, H0560: 2, L0761: 2, L0774: 2, L0806: 2, L0776: 2, H0659: 2, L0777: 2, L0780: 2, L0759: 2, H0136: 2, S0424: 2, H0170: 1, H0556: 1, H0341: 1, S0418: 1, S0356: 1, S0442: 1, S0360: 1,	l6p13.3	141750, 141800, 141800, 141800, 141800, 141850, 141850, 141850, 141850, 156850, 186580,	

HOFMP73	919895	i04	92 - 1129	2279	Ala-24 to Phe-30, Asn-42 to Trp-48, Val-57 to Leu-62, Ser-90 to Gln-96, Lys-104 to Cys-112, Gly-150 to Gly-159, 1, Tyr-180 to Cys-186,	S0278: 1, H0390: 1, T0048: 1, H0620: 1, H0510: 1, H0687: 1, H0688: 1, H0622: 1, T0006: 1, H0033: 1, H0213: 1, H0617: 1, S0450: 1, S0440: 1, L0646: 1, L0773: 1, L0662: 1, L0803: 1, L0653: 1, L0655: 1, L0657: 1, L0656: 1, L0659: 1, L0365: 1, L0783: 1, L0789: 1, L0663: 1, L0665: 1, H0547: 1, H0658: 1, H0660: 1, H0648: 1, S0380: 1, H0696: 1, H0555: 1, S0027: 1, S0028: 1, L0748: 1, L0439: 1, L0751: 1, L0752: 1, L0596: 1, L0599: 1, L0604: 1 and H0543: 1.	8p22	148370, 238600, 238600, 238600, 238600, 238600, 600143, 601385,
---------	--------	-----	-----------	------	--	--	------	--

					Pro-193 to Asp-210, Pro-220 to Ser-235, Ser-306 to Asp-313, Thr-339 to Ile-346.				602629
HOFMS02	920253	105	21 - 272	2280	Phe-24 to Glu-48.			H0415: 4	
HUVHD12	921707	106	1 - 666	2281	Tyr-44 to Trp-63, Thr-84 to Thr-90, Gln-111 to Tyr-116.			L0805: 9, L0747: 9, L0770: 8, L0794: 8, L0756: 8, H0271: 7, L0769: 5, L0748: 5, L0750: 5, H0305: 4, L0766: 4, L0804: 4, L0809: 4, H0265: 3, H0052: 3, H0051: 3, H0623: 3, L0803: 3, L0775: 3, H0556: 2, H0441: 2, H0486: 2, H0069: 2, H0050: 2, H0620: 2, S0051: 2, H0416: 2, S0036: 2, H0135: 2, S0002: 2, L0761: 2, L0768: 2, L0666: 2, H0144: 2, L0438: 2, L0439: 2, L0777: 2, S0114: 1, L0785: 1, S0001: 1, S0035: 1, H0402: 1, H0638: 1, H0580: 1, S0045: 1, S0046: 1, S0222: 1, H0333: 1, H0635: 1, H0036: 1,	

HMVDQ41	922191	107	327 - 809	2282		H0581: 1, H0024: 1, H0687: 1, H0068: 1, H0040: 1, H0412: 1, H0056: 1, S0352: 1, L0763: 1, L0796: 1, L5575: 1, L0800: 1, L0375: 1, L0651: 1, L0788: 1, L0790: 1, L0791: 1, L0663: 1, L0665: 1, S0052: 1, S0428: 1, S0216: 1, H0519: 1, H0593: 1, H0658: 1, H0660: 1, H0555: 1, L0743: 1, L0786: 1, L0779: 1, L0758: 1, S0436: 1, L0361: 1, L0366: 1, S0106: 1 and H0423: 1. L0752: 24, L0751: 7, L0748: 6, L0777: 6, L0775: 5, L0742: 5, L0749: 5, S0358: 4, L0776: 4, L0756: 4, S0376: 3, L0757: 3, S0212: 2, S0444: 2, S0010: 2, L0770: 2, L0764: 2, L0773: 2, L0774: 2, H0519: 2, L0743: 2, L0740: 2, L0731: 2, L0758: 2,		
---------	--------	-----	-----------	------	--	--	--	--

							L0604: 2, L0603: 2, S0298: 1, H0661: 1, S0442: 1, S0354: 1, S0360: 1, S0408: 1, H0632: 1, H0156: 1, H0421: 1, H0196: 1, H0052: 1, L0738: 1, H0009: 1, L0471: 1, H0239: 1, S0003: 1, T0067: 1, H0413: 1, H0059: 1, S0438: 1, S0440: 1, L0768: 1, L0794: 1, L0766: 1, L0803: 1, L0804: 1, L0375: 1, L0806: 1, L0783: 1, S0374: 1, H0659: 1, S0328: 1, S0152: 1, S0404: 1, S0406: 1, S0027: 1, L0439: 1, L0779: 1, L0753: 1, L0755: 1, L0759: 1 and S0242: 1.		
HODGI03	922879	108	3 - 227	2283	Lys-1 to Trp-26, Lys-34 to Ile-42.	H0615: 2			
HODHD14	922955	109	1 - 174	2284		H0615: 3 and H0352: 1.			
HODDC03	925296	110	3 - 311	2285	Lys-10 to Arg-32.	H0328: 1 and H0615: 1.			
HVCAG04	925735	111	1368 - 781	2286			2q21-q22	133510, 133510,	

									165320, 223000, 223000, 256030
HCRCE02	925837	112	31 - 129	2287				L0756: 6, L0776: 2, L0744: 2, H0486: 1, H0327: 1, S0003: 1, H0090: 1, L0761: 1, L0662: 1, L0766: 1, L0518: 1, H0659: 1, H0670: 1, S0406: 1, L0777: 1, L0780: 1, L0605: 1, L0366: 1 and H0423: 1.	
HHERA91	926067	113	2028 - 2399	2288	Ser-59 to Leu-66, Leu-76 to Trp-87, Arg-92 to Gly-105.			AR053: 3, AR089: 3, AR096: 2, AR060: 2, AR033: 2, AR061: 1, AR104: 1, AR055: 0	
HAGDL82	928396	114	2 - 94	2289	Pro-21 to Ala-28.				
HWBDS34	930484	115	3 - 983	2290	Pro-18 to Leu-25, Asp-72 to Ser-82, Pro-97 to Gly-107, Leu-110 to Ser-137.			S0212: 4, H0580: 1, S0045: 1, H0351: 1, S0010: 1, S0003: 1, H0560: 1, S0002: 1 and L0604: 1.	
H6ESA39	933568	116	2 - 1150	2291	Ala-9 to Trp-14.			L0758: 4, H0556: 3, L0751: 3, S0408: 2, H0618: 2, L0768: 2, H0547: 2, H0660: 2, L0754: 2, L0779: 2,	

HPCOR06	933678	117	147 - 281	2292	Val-18 to Gltu-33.	H0661: 1, H0370: 1, H0491: 1, H0318: 1, H0566: 1, H0551: 1, T0004: 1, L0435: 1, L0769: 1, L4747: 1, L5566: 1, L0772: 1, L0644: 1, L0764: 1, L0773: 1, L0774: 1, L0775: 1, L0806: 1, L0807: 1, L0659: 1, L0809: 1, L0665: 1, L0743: 1, L0747: 1, L0756: 1, L0777: 1, L0759: 1 and L0601: 1. H0659: 2 and L0777: 2.		
HTFNO06	933989	118	2 - 562	2293		L0794: 11, L0511: 11, L0748: 10, L0747: 8, L0499: 6, L0805: 6, L0509: 6, L0507: 5, L0502: 5, L0500: 5, L0766: 5, L0803: 5, L0508: 5, L0809: 5, L0751: 5, L0750: 5, L0752: 5, L0764: 4, L0662: 4, L0649: 4, L0493: 4, L0514: 4, H0670: 4, L0779: 4, H0445: 4, H0657: 3, H0036: 3, S0422: 3,		

77

							H0039: 1, H0674: 1, L0455: 1, H0087: 1, H0059: 1, T0041: 1, T0042: 1, H0494: 1, H0509: 1, H0646: 1, S0002: 1, L0800: 1, L0644: 1, L0533: 1, L0804: 1, L0650: 1, L0774: 1, L0806: 1, L0655: 1, L0661: 1, L0659: 1, L0782: 1, L0519: 1, L0793: 1, L0664: 1, H0144: 1, L0438: 1, H0520: 1, H0547: 1, H0711: 1, H0660: 1, S0152: 1, S0032: 1, L0754: 1, L0731: 1, L0757: 1, L0592: 1, S0194: 1, H0543: 1, H0422: 1, L0600: 1 and H0352: 1.			
HODFY08	935520	119	130 - 339	2294	Arg-40 to Gln-45.	L0803: 4, H0615: 2, S6028: 1, L0521: 1, L0662: 1, L0794: 1 and L0756: 1.				
HRACK27	935717	120	3 - 1283	2295	Lys-121 to Arg-127.	H0039: 3, L0794: 2, H0650: 1, S0212: 1, S0358: 1, H0441: 1, H0587: 1, S0003: 1, H0494: 1, H0529: 1,				

HRACW30	940639	121	7 - 786	2296		L0766: 1, H0690: 1, H0539: 1, H0696: 1, H0555: 1, L0439: 1, L0779: 1 and S0242: 1. S0358: 250, H0087: 131, S0376: 112, L0751: 93, H0445: 88, H0506: 87, L0599: 69, S0360: 67, H0672: 63, S0328: 63, S0116: 56, S0374: 55, H0597: 47, L0767: 47, L0744: 45, H0555: 44, H0486: 43, H0581: 35, H0040: 29, L0536: 29, L0535: 28, L0659: 26, H0658: 26, L0378: 24, L0546: 24, L0743: 24, H0255: 23, L0768: 23, H0264: 21, H0231: 20, H0085: 18, H0659: 18, L0607: 17, H0063: 16, S0330: 16, H0657: 15, L0785: 15, S0354: 15, H0647: 15, L0762: 15, S0372: 13, L0776: 13, H0421: 12, L0379: 11, S0446: 11, L0600: 11, L0663: 10, L0748: 10, H0595: 10, L0372: 9, L0648: 9, H0663: 8,	2p12	147200, 178640, 216900
---------	--------	-----	---------	------	--	---	------	------------------------------

80

	H0575: 2, H0037: 2, T0071: 2, H0204: 2, I10232: 2, H0050: 2, I10015: 2, H0271: 2, H0068: 2, S0382: 2, S0464: 2, H0538: 2, L0369: 2, L0627: 2, L0387: 2, L0633: 2, L0657: 2, L0518: 2, L0666: 2, L0665: 2, S0378: 2, L0758: 2, H0343: 2, S0458: 2, UNKWN: 2, H0352: 2, H0186: 1, H0583: 1, L0760: 1, H0125: 1, H0676: 1, H0619: 1, H0549: 1, H0101: 1, H0635: 1, L0021: 1, H0025: 1, H0120: 1, S0182: 1, H0596: 1, H0054: 1, H0086: 1, H0045: 1, H0350: 1, H0014: 1, H0510: 1, H0375: 1, T0023: 1, H0111: 1, H0383: 1, H0113: 1, H0376: 1, H0477: 1, H0487: 1, H0059: 1, T0004: 1, H0396: 1, S0352: 1, S0370: 1, H0641: 1				
--	---	--	--	--	--

							S0472: 1, H0652: 1, S0326: 1, H0517: 1, L0764: 1, L0765: 1, L0773: 1, L0766: 1, L0499: 1, L0376: 1, L0806: 1, L0527: 1, L0517: 1, L0542: 1, L0384: 1, L0529: 1, H0666: 1, H0579: 1, S0350: 1, H0134: 1, H0214: 1, S0406: 1, H0576: 1, H0478: 1, S0322: 1, L0747: 1, L0779: 1, L0780: 1, L0755: 1, S0394: 1, S0011: 1 and S0456: 1.		
HOFOC32	941969	122	3 - 1502	2297	Thr-1 to Pro-6, Pro-57 to Thr-63, Arg-110 to Asp-115, Lys-147 to Pro-152, Met-221 to Cys-228, Tyr-254 to Cys-261, Lys-286 to Gly-295, Thr-315 to Gly-325, Ala-351 to Ser-356, Ile-380 to Gln-387, Gly-409 to Arg-419, Val-421 to Val-428.	20q13.1- 13.3	118504, 118504, 131242, 256540, 600281, 600281, 602235		
HTTDM15	942511	123	2 - 670	2298	Glu-181 to Pro-189, Lys-211 to Arg-217.	AR053: 15, AR089: 14, AR033: 10, AR039: 9, AR096: 9, AR060: 9, AR055: 8, AR104: 7, AR061: 6 H0415: 1, H0438: 1, H0486: 1, H0581: 1, S0250: 1, H0616: 1, H0494: 1 and L0659: 1.			

							9, AR033: 8, AR096: 8, AR060: 8, AR061: 7, AR104: 5, AR039: 5 L0748: 4, H0441: 2, H0333: 2, H0670: 2, H0660: 2, L0439: 2, L0747: 2, L0601: 2, S0218: 1, H0650: 1, H0656: 1, H0254: 1, H0255: 1, H0013: 1, H0327: 1, H0266: 1, H0070: 1, H0040: 1, T0042: 1, L0809: 1, L0790: 1, L0792: 1, H0689: 1, H0435: 1, H0134: 1, L0741: 1, L0759: 1 and S0042: 1.		
HOVAY63	944031	124	589 - 449	2299	Lys-30 to His-47.	AR039: 13, AR104: 7, AR053: 6, AR089: 6, AR096: 6, AR052: 5, AR060: 5, AR033: 4, AR055: 4, AR061: 3 H0428: 3, H0545: 1 and L0754: 1.			
HDPFY41	946502	125	597 - 2024	2300	Trp-2 to Ile-8, Cys-31 to Asp-39, Glu-54 to Ser-61, Gln-63 to Lys-70, Arg-79 to Arg-85,	AR089: 19, AR096: 18, AR039: 11, AR053: 7, AR060: 6, AR055: 2, AR033: 1, AR061: 1, AR104: 1, AR052:			

					Ser-134 to His-143, Asn-145 to Thr-150, Ser-155 to Thr-168, Asp-198 to His-203, Phe-205 to Asp-234, Pro-238 to Asn-252, Phe-260 to Val-281, Pro-292 to Leu-314, Thr-317 to Ala-322, Lys-335 to His-342.	0	L0439: 4, L0756: 4, H0616: 3, L0766: 3, L0803: 3, L0777: 3, H0662: 2, H0428: 2, L0665: 2, H0547: 2, L0602: 2, L0779: 2, L0731: 2, H0624: 1, S0624: 1, S0114: 1, H0661: 1, S0356: 1, L0717: 1, H0409: 1, H0486: 1, S0003: 1, H0615: 1, S0036: 1, H0163: 1, S0426: 1, L0662: 1, L0649: 1, L0650: 1, L0375: 1, L0806: 1, L0655: 1, L0661: 1, L0659: 1, L0791: 1, L0792: 1, L0666: 1, H0144: 1, H0658: 1, H0672: 1, S0152: 1, H0521: 1, L0754: 1, L0759: 1, L0591: 1, S0011: 1 and H0008: 1.		
HCOPB92	948608	126	99 - 260	2301	Tyr-37 to Ser-47.		H0670: 2		
HBJHO83	948708	127	171 - 389	2302	His-1 to Phe-8.		H0318: 1, H0150: 1 and L0385: 1.		
HWME044	948719	128	3 - 1343	2303	Met-1 to Leu-7, Ile-21 to Gln-33,		H0622: 2, H0422: 2, S0358: 1, H0497: 1,		

					Pro-48 to Glu-53, His-66 to Asn-71, Asp-107 to Glu-118, Val-122 to Leu-133, Gly-185 to Gly-194, Thr-249 to Ser-258, Lys-310 to Lys-328, Arg-367 to Phe-375, Ser-377 to Ala-382, Gln-389 to Trp-395.	H0039: 1, H0056: 1, L0662: 1, H0666: 1, L0596: 1 and S0242: 1.		
HFXJA96	949001	129	1 - 240	2304		AR039: 36, AR052: 33, AR053: 19, AR104: 18, AR096: 17, AR033: 15, AR089: 13, AR061: 11, AR055: 11, AR060: 9 L0749: 3, L0757: 3, H0169: 2, L0769: 2, L0805: 2, L0754: 2, L0759: 2, H0685: 1, S0282: 1, L0717: 1, H0428: 1, H0068: 1, S0422: 1, L0648: 1, L0521: 1, L0794: 1, L0803: 1, L0776: 1, L0656: 1, L0809: 1, L0790: 1, L0665: 1, S0148: 1, L0438: 1, H0659: 1, H0648: 1, L0748: 1, L0747: 1.		

HTLGV19	949574	130	3 - 758	2305	Tyr-10 to Gly-19, Pro-55 to Lys-72, Glu-89 to Ala-95, Asp-107 to Gly-113, Arg-140 to Thr-149.	L0750: 1, L0752: 1, H0543: 1 and S0412: 1. AR061: 4, AR096: 3, AR089: 3, AR055: 3, AR060: 2, AR104: 2, AR039: 2, AR033: 1, AR053: 1 H0555: 2, S0040: 1, S0444: 1, H0619: 1, H0618: 1, H0620: 1, H0284: 1 and H0063: 1. AR052: 11, AR089: 5, AR053: 5, AR096: 4, AR060: 4, AR061: 4, AR039: 4, AR033: 3, AR055: 3, AR104: 3 S0007: 3, L0758: 3, S0382: 2, L0805: 2, L0776: 2, H0666: 2, L0748: 2, S6024: 1, H0341: 1, H0331: 1, H0628: 1, H0038: 1, S0002: 1, L0770: 1, L0662: 1, L0766: 1, L0522: 1, L0659: 1, L0663: 1, H0519: 1, H0659: 1, L0602: 1, L0754: 1, L0749: 1, L0779: 1 and L0731: 1.		
HMSAC18	950257	131	1214 - 297	2306				
HAPRB43	950475	132	3 - 536	2307	Phe-25 to Lys-31,	AR060: 10, AR055: 6,		

					Pro-60 to Lys-82, Tyr-122 to Asp-131, Lys-137 to Leu-144.	AR096: 6, AR061: 5, AR089: 4, AR033: 3, AR104: 3, AR052: 3, AR039: 3, AR053: 3 L0595: 7, L0803: 4, L0599: 4, S0356: 2, H0652: 2, L0771: 2, L0756: 2, L0779: 2, S0376: 1, H0486: 1, H0013: 1, H0575: 1, H0024: 1, H0356: 1, H0328: 1, L0369: 1, L0642: 1, L0794: 1, L0804: 1, L0809: 1, L0663: 1, L0665: 1, H0670: 1, H0648: 1, S0330: 1, L0752: 1, S0434: 1 and H0506: 1.		
HCCMD55	956895	133	199 - 17	2308	Gln-7 to Lys-23, Gln-49 to Glu-54.	AR055: 3, AR089: 3, AR053: 2, AR060: 2, AR039: 2, AR061: 1, AR033: 1, AR096: 1, AR104: 1, AR052: 0 S0358: 13, H0617: 8, S0444: 4, S0408: 2, S0374: 2, H0484: 1, S0376: 1, S0360: 1, S0410: 1, H0618: 1, H0231: 1, H0615: 1, S0368: 1, H0606: 1,		

							S0438: 1, H0647: 1, L0762: 1, L0772: 1, L0764: 1, L0376: 1, L0493: 1, L0783: 1, L0530: 1, H0659: 1, H0670: 1, H0648: 1, H0672: 1 and L0758: 1.			
HKBAL08	958219	134	108 - 1	2309			Leu-28 to Phe-35.			
HKADF15	960658	135	1 - 1551	2310			Ala-3 to Gly-12, Gly-23 to Ser-46, Arg-91 to Gly-97, Val-105 to Ala-116, Ser-173 to His-180, Gly-190 to Tyr-206, Lys-280 to Lys-285, Arg-347 to Asp-352, Glu-403 to Lys-410, Ser-430 to Phe-442.	10q25.3- q26.2	263700, 601969, 601969	
							L0747: 24, L0754: 18, H0309: 12, H0545: 12, H0031: 12, L0439: 11, H0428: 10, L0755: 10, H0251: 9, S0126: 9, L0744: 8, L0757: 8, L0588: 8, S0360: 7, S0010: 7, S0051: 7, H0252: 7, H0135: 7, L0361: 7, S0212: 6, H0544: 6, H0687: 6, H0494: 6, L0438: 6, H0658: 6, L0748: 6, L0752: 6, L0591: 6, H0662: 5, L0731: 5, L0759: 5, S0192: 5, S0040: 4, S0222: 4, H0081: 4, H0024: 4, H0644: 4, H0124: 4, H0551: 4, L0662: 4, L0659: 4, L0565: 4, L0751: 4, L0750: 4,			

L0599: 4, S0194: 4, H0486: 3, H0013: 3, T0006: 3, H0628: 3, H0316: 3, H0163: 3, L0770: 3, L0768: 3, L0775: 3, L0809: 3, H0670: 3, H0672: 3, L0603: 3, S0356: 2, S0358: 2, S0046: 2, H0455: 2, H0586: 2, H0587: 2, H0575: 2, H0318: 2, H0123: 2, H0012: 2, H0188: 2, S0250: 2, S0003: 2, S0214: 2, T0023: 2, H0553: 2, T0067: 2, L0351: 2, L0763: 2, L0771: 2, L0774: 2, L0651: 2, L0783: 2, L0666: 2, H0689: 2, H0660: 2, H0651: 2, S0330: 2, S0378: 2, S0206: 2, L0749: 2, S0031: 2, L0590: 2, L0601: 2, H0624: 1, S0342: 1, S0180: 1, S0400: 1, L0005: 1, S0376: 1, H0619: 1, H0645: 1, S0300: 1, L0717: 1, H0406: 1,						
--	--	--	--	--	--	--

90

								L0806: 1, L0655: 1, L0657: 1, L0547: 1, L0647: 1, L0788: 1, L0793: 1, L0663: 1, L0664: 1, H0693: 1, H0648: 1, H0704: 1, H0555: 1, S0037: 1, S3014: 1, S0028: 1, L0743: 1, L0740: 1, L0779: 1, L0780: 1, S0260: 1, H0343: 1, L0605: 1, L0366: 1, H0653: 1, H0667: 1, L0096: 1, S0196: 1 and H0506: 1.			
HOGES55	961337	136	107 - 1483	2311	Ser-14 to Ser-23, His-30 to Ser-45, Gly-55 to Arg-67, Leu-71 to Leu-76, Leu-97 to Gln-102, Ser-118 to Pro-129, Pro-159 to Ala-179, Leu-189 to Ser-204.			L0803: 4, L0663: 3, S0420: 2, L0666: 2, H0435: 2, L0748: 2, L0777: 2, S0116: 1, S0132: 1, H0370: 1, L0021: 1, S0422: 1, L0664: 1, H0658: 1, S0328: 1, L0749: 1, S0436: 1 and L0097: 1.			
HKZAJ14	961458	137	135 - 1028	2312	Asn-4 to Lys-9, Arg-37 to Pro-42, Pro-79 to Ile-91, Asp-144 to Trp-155, Asp-189 to Gln-194, Ser-199 to Ser-204.			L0777: 3, L0754: 2, H0689: 1, H0660: 1 and L0755: 1.			

						Leu-208 to Asn-214, Leu-225 to Leu-230, Thr-234 to Lys-245, Asn-251 to Leu-260, Gln-285 to Asp-290.					
HLHAE14	962362	138	1915 - 1826	2313		Gly-15 to Gln-26.	L0748: 2, L0749: 2, H0024: 1 and H0051: 1.				
HBCJN16	965190	139	2 - 346	2314		Pro-15 to Arg-20, Leu-31 to Asp-36, Gly-50 to Gln-65, Phe-74 to Gly-81.					
HCGAF29	965372	140	2 - 1660	2315		Ser-1 to Gly-9, Ile-50 to Thr-55.	H0449: 1, H0393: 1, H0691: 1, H0547: 1 and H0711: 1.	1p12-p13	102770, 188540, 600234, 601414, 601691, 601691, 601691, 601691, 601718, 602094		
HAHEF81	967634	141	716 - 339	2316			L0774: 3, L0809: 2, H0483: 1, H0306: 1, H0599: 1, H0618: 1, H0083: 1, H0644: 1, H0617: 1, H0606: 1, H0087: 1, L0369: 1, L0763: 1, L0643: 1, L0662: 1, L0794: 1, L0804: 1, L0790: 1				

HBJAB02	967807	142	2 - 1267	2317	Val-35 to Leu-44, Gln-60 to Arg-67, Glu-72 to Asn-84, Glu-131 to Cys-152, Tyr-162 to Gly-175, Gly-184 to Gly-189, Ser-191 to Gly-223, Asp-261 to Arg-266, Asn-270 to Glu-275, Gln-282 to His-287, Tyr-302 to Asn-310, Lys-321 to Arg-327, Lys-330 to Ala-339, Lys-385 to Gly-391, Arg-402 to Lys-422.	L0665: 1, H0658: 1, H0696: 1, L0748: 1, L0780: 1 and L0757: 1, L0794: 3, H0255: 2, H0318: 2, H0251: 2, L0764: 2, L0628: 2, L0665: 2, H0658: 2, L0361: 2, H0265: 1, H0685: 1, H0657: 1, H0483: 1, S0420: 1, S0358: 1, S0132: 1, S0222: 1, T0082: 1, H0150: 1, H0083: 1, S0214: 1, H0252: 1, H0628: 1, T0041: 1, S0344: 1, H0529: 1, L0520: 1, L0535: 1, L0662: 1, L0387: 1, L0375: 1, L0518: 1, L0666: 1, L0663: 1, H0519: 1, H0670: 1, H0660: 1, L0747: 1, L0777: 1, L0601: 1, S0276: 1, H0423: 1 and H0422: 1.	5q23.3- q31.2	121050, 131400, 153455, 159000, 179095, 180071, 181460, 192974, 192974, 600807, 601596, 602089
HOUCR01	968171	143	2 - 994	2318	Leu-98 to Cys-107, Ala-135 to Ala-142, Pro-233 to Lys-238, Gln-246 to Ala-257, Ser-294 to His-302.	AR033: 7, AR104: 7, AR055: 4, AR060: 3, AR096: 3, AR089: 3, AR061: 3, AR053: 2, AR052: 2, AR039: 1		

HDTIG18	968454	144	334 - 1011	2319	Arg-1 to Gly-8, Pro-10 to Ser-72, Thr-80 to Gln-86, Pro-96 to Ala-102, Ser-137 to Val-146, Leu-207 to Asp-214, Gln-219 to Thr-226.	L0742: 4, S0007: 3, L0439: 3, S0040: 2, H0009: 2, L0769: 2, L5566: 2, L0764: 2, L0740: 2, L0758: 2, S0110: 1, S0010: 1, H0390: 1, S0049: 1, L0157: 1, H0563: 1, H0570: 1, H0123: 1, H0024: 1, H0252: 1, H0615: 1, H0617: 1, H0040: 1, H0509: 1, L0763: 1, L0794: 1, H0144: 1, H0691: 1, L0438: 1, H0547: 1, H0658: 1, H0539: 1, H0696: 1, H0555: 1, L0748: 1, L0750: 1 and L0777: 1.	2q32.1	600258, 602087
---------	--------	-----	------------	------	--	--	--------	-------------------

HBLGD30	968949	145	3951 - 1765	2320	Glu-20 to Lys-33, Ser-96 to His-109, Asn-147 to Val-166, Glu-188 to Ala-194, Ala-231 to Lys-240, Ala-267 to Lys-283, Met-291 to Gly-297, Arg-332 to Thr-338, Thr-365 to Tyr-377, Gln-381 to Ser-389, Glu-406 to Lys-417, Arg-462 to Glu-467, Ile-525 to Asp-535, Leu-595 to Glu-615, Phe-667 to Tyr-675, Gln-722 to Gly-729.	L0745: 1, L0746: 1, L0750: 1, L0779: 1, L0752: 1, L0753: 1, L0755: 1, L0757: 1, S0026: 1, S0276: 1 and H0543: 1.	3q23-q25	106165, 110100, 111700, 117700, 150210, 169600, 180380, 180380, 180380, 180380, 203500, 222900, 276902, 601199, 601199, 601199, 601682
HFIHK04	969387	146	580 - 825	2321	Pro-16 to Pro-21, Ser-33 to Gly-38.	L0747: 5, H0318: 3, H0617: 3, L0749: 3, L0776: 2, H0483: 1, H0615: 1, H0039: 1, L0055: 1, L0769: 1, L0521: 1, L0766: 1, L0375: 1, L0809: 1,		

							H0520: 1, H0689: 1, H0672: 1, S0152: 1, L0750: 1, L0608: 1 and S0194: 1.			
HODIL24	969841	147	7 - 798	2322			H0615: 6, L0766: 3, L0779: 2, L0777: 2, H0556: 1, S0222: 1, H0438: 1, H0492: 1, H0013: 1, H0156: 1, H0052: 1, H0561: 1, S0440: 1, S0150: 1, H0538: 1, L0369: 1, L0371: 1, L0769: 1, L0805: 1, L0659: 1, L0647: 1, S0374: 1, H0518: 1, S0152: 1, L0740: 1, L0756: 1, L0755: 1, L0731: 1, H0445: 1, S0026: 1 and H0653: 1.			
HE8NQ16	970046	148	2 - 1105	2323			L0439: 6, L0756: 5, L0779: 5, L0777: 5, L0759: 5, L0776: 4, H0620: 3, L0747: 3, L0755: 3, S0442: 2, S0358: 2, H0615: 2, L0770: 2, L0768: 2, H0144: 2, S0374: 2, L0748: 2, L0740: 2, L0745: 2, L0750: 2,			

HOFMS34	973010	149	27 - 1019	2324	Gly-9 to Gln-19, Pro-36 to Gly-41, Ala-112 to Ala-123, Asp-151 to Arg-157, Ala-199 to Asp-211.	AR053: 2, AR033: 2, AR089: 2, AR060: 2, AR096: 2, AR052: 1, AR061: 1, AR055: 1, AR039: 1, AR104: 0 H0415: 5	L0599: 2, S0134: 1, S0222: 1, H0642: 1, H0013: 1, H0156: 1, S0010: 1, H0052: 1, H0596: 1, H0083: 1, S028: 1, H0687: 1, S0250: 1, S0003: 1, S0214: 1, H0428: 1, H0622: 1, H0644: 1, H0038: 1, H0269: 1, T0042: 1, H0646: 1, L0369: 1, L0762: 1, L0796: 1, L0800: 1, L0662: 1, L0794: 1, L0774: 1, L0775: 1, L0659: 1, L0783: 1, L0793: 1, H0683: 1, H0435: 1, H0648: 1, H0672: 1, S0328: 1, H0539: 1, S0380: 1, H0696: 1, S0044: 1, H0631: 1, L0749: 1, L0753: 1, L0757: 1, S0434: 1 and L0485: 1.		
---------	--------	-----	-----------	------	--	--	--	--	--

HOFOB11	973505	150	3 - 293	2325	Pro-70 to Cys-76.	AR096: 11, AR089: 6, 1p31 AR053: 6, AR060: 5, AR104: 5, AR033: 3, AR039: 3, AR055: 2, AR061: 1 H0415: 2	180069, 180069, 180069, 201450, 248610, 600309, 601676, 602522
HTLHN94	974667	151	306 - 812	2326	His-8 to Gly-18.	AR039: 26, AR055: 18, AR033: 15, AR053: 14, AR052: 13, AR089: 12, AR060: 11, AR104: 11, AR096: 10, AR061: 8 H0521: 185, H0522: 75, H0046: 37, S0360: 25, H0580: 24, H0585: 22, H0575: 22, L0599: 21, H0657: 16, H0255: 15, H0486: 15, L0664: 15, H0641: 14, S0376: 12, H0581: 12, L0751: 12, H0650: 11, H0087: 10, S0002: 10, H0638: 9, H0264: 9, H0509: 9, L0769: 9, H0445: 9, H0656: 8, S0358: 8, H0617: 8, L0748: 8, L0750: 8, L0659: 7, H0658: 7, H0672: 7,	

100

H0049: 1, H0620: 1, H0024: 1, H0014: 1, H0354: 1, H0355: 1, H0099: 1, H0188: 1, H0252: 1, H0328: 1, H0622: 1, H0553: 1, H0644: 1, H0111: 1, H0169: 1, H0598: 1, S0036: 1, H0135: 1, H0616: 1, H0062: 1, H0063: 1, H0366: 1, S0352: 1, S0448: 1, S0472: 1, H0652: 1, S0144: 1, S0142: 1, S0426: 1, L0520: 1, L0762: 1, L0763: 1, L0770: 1, L0638: 1, L0761: 1, L0374: 1, L0771: 1, L0648: 1, L0767: 1, L0387: 1, L0381: 1, L0655: 1, L0606: 1, L0661: 1, L0517: 1, L0782: 1, L0783: 1, L0809: 1, L0544: 1, L0543: 1, L0647: 1, L0788: 1, L0789: 1, S0428: 1, S0216: 1, S0374: 1, H0691: 1, H0690: 1, H0666: 1, H0651: 1					
---	--	--	--	--	--

									H0518: 1, H0479: 1, L0756: 1, L0779: 1, L0780: 1, H0343: 1, H0595: 1, L0588: 1, L0604: 1, L0697: 1, S0384: 1 and L0600: 1.			
HLDRT31	975754	152	37 - 585	2327					AR061: 16, AR060: 7, AR039: 5, AR089: 4, AR096: 3, AR104: 2, AR033: 1, AR055: 1, AR053: 1 H0199: 2, H0246: 2, H0197: 1, H0510: 1 and H0144: 1.			
HWLHW86	975771	153	5 - 1186	2328	Ser-1 to Gly-16, Pro-26 to Gly-31, Thr-40 to Gln-46, Pro-59 to Ser-66, Pro-69 to Ser-80, Val-120 to Cys-126, Lys-157 to Gly-166, Gln-169 to Tyr-175, Arg-205 to Glu-212, His-230 to Leu-242, Gln-277 to Asn-285.				AR060: 12, AR039: 8, 4q AR089: 7, AR096: 1, AR061: 1, AR033: 0, AR053: 0, AR055: 0 S0408: 32, S0444: 21, S0442: 20, S0360: 20, L0665: 19, S0406: 18, S0436: 18, S0358: 17, L0666: 17, S0440: 15, L0752: 13, L0663: 11, S0376: 10, S0374: 10, L0662: 9, L0646: 8, H0672: 8, L0596: 8, L0601: 8, S0354: 6, L0664: 6, H0648: 6, L0777: 6, L0774: 5,			

103

							L0644: 1, L0803: 1, L0650: 1, L0775: 1, L0805: 1, L0634: 1, L0636: 1, L0782: 1, L0809: 1, H0547: 1, H0689: 1, H0682: 1, H0683: 1, H0435: 1, H0660: 1, S0328: 1, S0378: 1, H0704: 1, L0758: 1, H0707: 1, S0026: 1 and S0460: 1.			
HOFNM53	976051	154	3 - 1589	2329		Val-9 to Glu-22, Leu-48 to Gln-53, Ser-64 to Asn-74, Pro-76 to Arg-83, Thr-118 to Gly-126.	AR104: 6, AR053: 5, AR089: 5, AR033: 5, AR039: 4, AR055: 4, AR060: 4, AR096: 3, AR061: 1, AR052: 0 H0415: 4			
HDPSE86	976207	155	1 - 1344	2330		Pro-30 to Thr-35, Ala-81 to Pro-86, Gly-140 to Thr-151, Ala-157 to Gly-162, Arg-195 to Val-209, Arg-236 to Ser-245.	AR053: 17, AR089: 16, AR033: 12, AR060: 12, AR039: 12, AR096: 10, AR104: 9, AR055: 9, AR061: 7 H0424: 2, H0689: 2, H0318: 1, S0036: 1, L0665: 1, H0684: 1, H0521: 1 and H0555: 1.	12q23-q24	113100, 124200, 147440, 158590, 160781, 163950, 163950, 235800, 251170, 276710, 600175, 601517	
HHFOE18	976216	156	1 - 1275	2331		Thr-1 to Thr-33.	L0659: 7, H0486: 4,			

HHFNH27	976968	157	11 - 604	2332	Asp-1 to Ser-12, Glu-15 to Ala-29, Glu-40 to Lys-56, Ile-131 to Asp-150, Leu-177 to Asp-183.	L0748: 4, L0747: 4, H0328: 3, L0800: 3, H0050: 2, H0135: 2, H0059: 2, L0771: 2, L0790: 2, L0750: 2, L0777: 2, L0759: 2, H0624: 1, H0170: 1, H0717: 1, H0663: 1, L0005: 1, H0619: 1, H0645: 1, H0455: 1, H0013: 1, S0010: 1, S6028: 1, H0039: 1, H0031: 1, H0598: 1, H0102: 1, L0598: 1, L0763: 1, L0761: 1, L0803: 1, L0791: 1, L0666: 1, L0565: 1, S0126: 1 and L0749: 1, AR052: 169, AR096: 135, AR053: 92, AR089: 91, AR060: 83, AR033: 59, AR104: 54, AR039: 40, AR061: 37, AR055: 29 H0341: 9, H0657: 7, S0358: 4, H0251: 4, H0428: 4, L0748: 4, L0750: 4, H0445: 4, S0116: 3, H0333: 3, H0318: 3, T0041: 3,	12q23-q24.1	124200, 147440, 160781, 181405, 235800, 261600, 261600, 600175, 601406, 601620, 601621
---------	--------	-----	----------	------	--	--	-------------	--

	S0126: 3, H0670: 3, H0648: 3, H0543: 3, H0170: 2, S0376: 2, S0360: 2, S0007: 2, H0619: 2, H0393: 2, H0486: 2, H0156: 2, H0596: 2, H0046: 2, H0014: 2, H0059: 2, T0004: 2, H0647: 2, L0521: 2, L0375: 2, L0517: 2, H0659: 2, H0658: 2, H0660: 2, H0672: 2, S0380: 2, H0521: 2, S0044: 2, H0576: 2, L0747: 2, L0485: 2, L0595: 2, L0362: 2, S0026: 2, H0624: 1, S0180: 1, S0212: 1, H0663: 1, H0305: 1, H0459: 1, S0418: 1, S0420: 1, S0045: 1, S0046: 1, H0351: 1, S0222: 1, H0392: 1, H0249: 1, H0643: 1, H0331: 1, H0618: 1, T0071: 1, H0581: 1, H0421: 1, H0263: 1, L0040: 1, H0546: 1, H0009: 1, H0123: 1, H0050: 1	
--	---	--

							L0749: 1, L0756: 1, L0777: 1, L0731: 1, L0758: 1, L0581: 1, L0599: 1, L0608: 1, L0594: 1, L0603: 1, H0668: 1, H0665: 1, H0667: 1, S0194: 1, H0542: 1, H0423: 1, H0422: 1, S0424: 1 and H0506: 1.			
HMMBZ81	977264	158	551 - 357	2333			H0444: 1			
HSLGF32	977704	159	2 - 301	2334	Arg-1 to Arg-45, Glu-47 to Arg-77, Asp-79 to Ser-100.		L0748: 6, L0777: 4, H0685: 2, L0599: 2, H0575: 1, S0010: 1, H0421: 1, H0169: 1, H0264: 1, H0413: 1, L0769: 1, L0646: 1, L0803: 1, L0653: 1, L0776: 1, L0792: 1, H0659: 1, H0658: 1, S014: 1, S0028: 1, L0751: 1 and L0779: 1.			
HEEAH23	978593	160	1 - 123	2335			H0549: 1, S0222: 1, H0266: 1, H0428: 1 and S0370: 1.			
HODFU73	978812	161	179 - 652	2336	Gly-85 to His-97, Gly-125 to Gly-130.		L0519: 5, L0756: 5, L0731: 5, L0665: 4, L0717: 3, S0474: 3, L0794: 3, L0663: 3, H0547: 3, H0682: 3,	2p14-p13	203800, 602404	

									H0660: 3, H0615: 2, H0551: 2, L0650: 2, L0805: 2, L0659: 2, L0809: 2, L0666: 2, L0439: 2, L0740: 2, L0745: 2, L0750: 2, H0352: 2, H0411: 1, H0431: 1, H0590: 1, L0738: 1, H0015: 1, H0071: 1, S6028: 1, H0328: 1, H0688: 1, H0039: 1, H0622: 1, H0591: 1, H0264: 1, S0422: 1, L0638: 1, L0662: 1, L0803: 1, L0375: 1, L0657: 1, L0791: 1, L0664: 1, H0144: 1, L0352: 1, H0690: 1, H0658: 1, H0670: 1, H0666: 1, L0754: 1, L0746: 1, L0777: 1, L0755: 1 and S0412: 1.				
HNBUA49	978998	162	1399 - 353	2337					L0754: 3, L0591: 3, H0659: 2, L0748: 2, H0663: 1, H0662: 1, S0354: 1, S0376: 1, L0021: 1, S6028: 1, H0616: 1, T0067: 1, S0422: 1, L0520: 1,				

							L0769: 1, L0764: 1, L0766: 1, L0653: 1, L0659: 1, L0529: 1, L0666: 1, L0663: 1, L0664: 1, L0665: 1, L0565: 1, H0648: 1, H0522: 1, H0436: 1, L0439: 1, L0756: 1, L0755: 1, L0758: 1, H0445: 1 and H0543: 1.			
HVVDU73	979346	163	2 - 1603	2338	Val-1 to Gly-7, Ala-10 to Ser-15, Ala-32 to Ala-75, Pro-93 to Asp-101, Arg-107 to Gln-117, Glu-133 to Ser-138, Ile-157 to Pro-170, Arg-181 to Glu-192, Ser-200 to Glu-209, Glu-239 to Val-249, Glu-287 to Glu-305, Ala-320 to Arg-328, Pro-363 to Arg-389, Lys-396 to Leu-406, Arg-433 to Gly-442, Ser-470 to Asn-481, Arg-498 to Ser-528.			1q25.1- q32.3	145001, 145260, 150292, 208250, 600759, 600995, 601652, 601975	
HHESX72	979468	164	136 - 480	2339	Tyr-28 to Ser-34, Leu-76 to Gln-83.		L0748: 3, S0380: 2, H0581: 1, H0477: 1, S0126: 1 and H0543: 1.			

HOCYPY88	979547	165	136 - 939	2340	Arg-38 to Lys-44, Lys-65 to Pro-72, Pro-96 to Tyr-102, Val-117 to Tyr-124, Leu-140 to Gly-154, Pro-167 to Trp-174, Val-180 to Tyr-185, Pro-191 to Tyr-196, Pro-199 to Thr-204, Gln-238 to Ala-244, Val-255 to Val-262.	H0553: 2, H0519: 2, L0731: 2, S0192: 2, S0134: 1, H0306: 1, H0375: 1, H0292: 1, S0144: 1, L0794: 1, L0766: 1, L0775: 1, L0809: 1, H0144: 1, S0126: 1, H0660: 1, H0672: 1, H0521: 1 and S0260: 1.	2p13	203800, 602404
HOGDC64	979666	166	164 - 769	2341		H0521: 53, S0002: 17, L0809: 13, S0360: 12, H0522: 12, H0580: 11, L0766: 11, S0426: 10, S0278: 9, H0618: 9, L0758: 8, H0556: 7, H0581: 7, L0439: 7, L0731: 7, H0253: 6, H0038: 6, L0771: 6, L0794: 6, L0805: 6, L0518: 6, L0666: 6, L0748: 6, H0553: 5, L0764: 5, L0659: 5, L0779: 5, H0265: 4, H0650: 4, S0408: 4, S0344: 4, L0667: 4, L0776: 4, L0759: 4, L0596: 4, L0604: 4, L0362: 4, H0486: 3,	17q21-q23	106180, 109270, 109270, 109270, 109270, 109270, 109270, 113705, 113705, 138700, 139250, 144200, 148065, 148066, 148066, 148067, 148067, 148069, 148080, 150200,

112

113

							H0659: 1, H0660: 1, H0672: 1, S0380: 1, H0696: 1, S0188: 1, H0214: 1, S0406: 1, H0555: 1, S0118: 1, L0741: 1, L0750: 1, L0777: 1, S0260: 1, H0445: 1, L0485: 1, S0011: 1, H0423: 1 and H0422: 1.		
HSIEA14	980139	167	456 - 683	2342	Pro-46 to Lys-53.		AR039: 4, AR096: 1, AR053: 1, AR060: 1, AR089: 1, AR033: 1, AR061: 1, AR055: 0, AR104: 0 H0036: 1		
HSPSY43	980269	168	883 - 1659	2343	Leu-32 to Glu-41, Asn-67 to His-72, Glu-96 to Thr-105, Phe-122 to Leu-130, Glu-151 to Glu-157, Val-165 to Gly-171, Arg-185 to Ile-196, Ser-205 to Leu-216, Leu-220 to Ala-225, Tyr-235 to Leu-243.		L0439: 17, H0013: 16, T0010: 13, S0010: 10, H0052: 10, L0754: 10, S0222: 9, L0743: 8, S0001: 7, H0644: 6, H0144: 6, L0662: 5, L0659: 5, H0547: 5, H0658: 5, L0742: 5, L0591: 5, H0657: 4, S0007: 4, H0441: 4, L0351: 4, S0344: 4, L0741: 4, S0046: 3, H0351: 3, H0575: 3, S0346: 3, H0178: 3,	9q33-q34	125270, 125270, 128100, 137350, 146150, 191100, 215700, 223360, 223900, 253800, 253800, 268900, 601850

115

116

						II0124: 1, H0038: 1, H0087: 1, H0551: 1, H0272: 1, H0412: 1, T0042: 1, H0494: 1, H0560: 1, H0633: 1, L0598: 1, L0369: 1, L0763: 1, L0769: 1, L0630: 1, L0646: 1, L0521: 1, L0794: 1, L0629: 1, L0517: 1, L0382: 1, L0809: 1, L0789: 1, L0792: 1, L0666: 1, L0665: 1, S0216: 1, S0122: 1, H0683: 1, H0684: 1, S0330: 1, H0709: 1, H0521: 1, H0555: 1, H0436: 1, H0576: 1, S0028: 1, L0746: 1, L0753: 1, L0731: 1, H0707: 1, L0485: 1, L0366: 1, S0276: 1 and H0543: 1.		
HSXBH24	981029	169	220 - 2199	2344	Ser-11 to Gly-21, Cys-47 to Leu-61, Ser-82 to Tyr-88, Cys-182 to Tyr-187, Trp-268 to Asp-285.	AR089: 2, AR060: 2, AR033: 2, AR096: 1, AR061: 1, AR039: 0, Cys-182 to Tyr-187, AR104: 0, AR055: 0, AR053: 0 H0261: 1, H0370: 1, H0559: 1, H0013: 1.		

HOFAE61	981108	170	2 - 505	2345	Lys-10 to Gly-21.	H0510: 1, S0036: 1, H0100: 1, L0771: 1, L0659: 1, H0666: 1, L0779: 1 and L0758: 1. H0415: 1 and H0414: 1.		
HCFOF82	981272	171	2 - 901	2346	Trp-1 to Lys-6.	AR096: 3, AR033: 2, AR053: 2, AR089: 2, AR039: 2, AR060: 2, AR104: 1, AR061: 1, AR055: 1, AR052: 0 L0766: 3, L0777: 3, L0768: 2, L0748: 2, L0757: 2, L0759: 2, L0596: 2, T0060: 1, S0010: 1, H0251: 1, H0594: 1, S0214: 1, H0328: 1, H0615: 1, H0428: 1, H0674: 1, H0040: 1, H0412: 1, L0763: 1, L0803: 1, L0653: 1, L0666: 1, L0664: 1, S0028: 1, L0751: 1, H0423: 1 and H0506: 1.		
HOCMT79	981309	172	421 - 1431	2347	Thr-1 to Asp-12, Arg-27 to Asp-35, Arg-84 to Asp-89, Leu-93 to Thr-99, Pro-104 to Lys-113.	H0618: 12, H0052: 6, L0439: 6, H0253: 5, L0665: 4, H0013: 3, L0766: 3, L0775: 3, L0664: 3, L0742: 3,	5p	

119

								H0682: 1, H0539: 1, H0518: 1, H0521: 1, H0436: 1, L0741: 1, L0743: 1, L0757: 1, S0031: 1, L0595: 1, H0542: 1 and H0423: 1.			
HKAEI03	981319	173	1 - 405	2348				H0620: 1, H0615: 1, H0063: 1 and H0494: 1.	1p11.1-13.1	102770, 201810, 601414, 601691, 601691, 601691, 601691, 601718, 602094	
HOCPO31	981593	174	330 - 470	2349				H0087: 2, H0660: 1 and H0672: 1.			
HAOTG88	981606	175	229 - 2	2350		Asn-1 to Lys-6.		H0686: 1, H0685: 1 and S0053: 1.			
HVCAH21	981768	176	2 - 616	2351		Ala-1 to Ala-12, Cys-57 to Tyr-65, Glu-76 to Asp-82, Arg-100 to Pro-105, Asp-110 to Pro-126, Cys-129 to Ala-139, Lys-147 to Pro-172, Pro-182 to Asp-188, Arg-199 to Met-205.	L0751: 6, L0588: 6, L0748: 5, L0758: 5, S0007: 4, S0438: 4, L0763: 4, L0776: 4, L0759: 4, L0604: 4, L0594: 4, L0362: 4, S0358: 3, S0410: 3, H0575: 3, H0617: 3, S0440: 3, L0775: 3, L0809: 3, S0374: 3, L0742: 3, H0656: 2,	8q13.3	214400, 600415, 601653, 601653, 602476		

	S0360: 2, S0278: 2, L0622: 2, S0010: 2, H0251: 2, H0408: 2, T0023: 2, T0006: 2, T0067: 2, H0509: 2, L0646: 2, L0766: 2, L0381: 2, L0774: 2, L0806: 2, L0526: 2, L0518: 2, L0665: 2, H0689: 2, H0658: 2, S0378: 2, H0710: 2, L0754: 2, L0750: 2, L0731: 2, L0590: 2, L0591: 2, L0485: 2, H0543: 2, H0265: 1, S6024: 1, H0657: 1, S0212: 1, H0661: 1, H0663: 1, H0638: 1, S0420: 1, S0354: 1, S0376: 1, S0408: 1, S0132: 1, H0393: 1, H0282: 1, H0299: 1, H0333: 1, H0643: 1, H0574: 1, L0623: 1, H0486: 1, T0060: 1, H0250: 1, T0115: 1, T0110: 1, H0530: 1, H0012: 1, H0373: 1, H0030: 1, H0553: 1, H0673: 1, H0674: 1,					
--	--	--	--	--	--	--

122

5	L0809: 7, H0658: 6, L0748: 6, S0222: 5, L0794: 5, L0776: 5, L0756: 5, L0752: 5, L0731: 5, L0770: 4, L0662: 4, L0743: 4, L0439: 4, L0751: 4, L0754: 4, L0747: 4, L0759: 4, H0013: 3, L0769: 3, L0805: 3, L0789: 3, L0664: 3, L0740: 3, L0777: 3, L0753: 3, L0758: 3, H0333: 2, H0052: 2, H0545: 2, H0428: 2, L0483: 2, L0455: 2, H0509: 2, L0763: 2, L0771: 2, L0803: 2, L0804: 2, L0806: 2, L0527: 2, L0783: 2, L0666: 2, L0663: 2, S0152: 2, S0146: 2, L0744: 2, L0745: 2, L0603: 2, H0686: 1, S0116: 1, H0255: 1, S0418: 1, S0408: 1, H0645: 1, H0393: 1, L0717: 1, H0351: 1, H0370: 1, H0574: 1,						
---	---	--	--	--	--	--	--

124

							L0787: 1, L0665: 1, L0438: 1, L0759: 1 and L0592: 1.			
HOPJT48	981862	179	348 - 217	2354			H0685: 1, L0623: 1 and H0684: 1.			
HCFVAV61	981914	180	3 - 1091	2355		Arg-1 to Ile-7, Gly-22 to Lys-42, Ser-52 to Glu-59, Leu-80 to Asp-87, Lys-107 to Thr-115, Trp-123 to Glu-131, Tyr-148 to Glu-155.	L0766: 5, L0747: 4, L0750: 4, L0777: 4, S0046: 2, H0486: 2, L0769: 2, L0805: 2, H0547: 2, L0749: 2, L0752: 2, L0759: 2, L0590: 2, S0026: 2, H0624: 1, H0686: 1, H0341: 1, S0358: 1, S0360: 1, S0045: 1, H0549: 1, H0587: 1, L0157: 1, H0566: 1, H0057: 1, H0320: 1, H0051: 1, H0687: 1, S0003: 1, H0428: 1, H0090: 1, L0794: 1, L0774: 1, L0806: 1, L0653: 1, L0655: 1, L0657: 1, L0659: 1, L0791: 1, L4501: 1, L0666: 1, L0664: 1, H0701: 1, H0672: 1, S0328: 1, H0539: 1, S0380: 1, H0478: 1, L0780: 1, L0755: 1,			

126

				H0255: 2, S0376: 2, H0431: 2, H0331: 2, H0427: 2, S0280: 2, H0599: 2, S0010: 2, H0581: 2, T0115: 2, H0530: 2, H0375: 2, L0483: 2, H0598: 2, H0090: 2, H0264: 2, H0412: 2, H0641: 2, H0647: 2, L0774: 2, L0666: 2, L0665: 2, H0547: 2, H0682: 2, H0658: 2, H0522: 2, S0044: 2, S3012: 2, S0027: 2, L0745: 2, L0747: 2, L0750: 2, L0757: 2, L0759: 2, H0445: 2, S0194: 2, L0600: 2, H0170: 1, H0686: 1, S0114: 1, H0583: 1, H0657: 1, L0785: 1, H0341: 1, S0282: 1, H0254: 1, H0661: 1, H0638: 1, S0348: 1, S0418: 1, L0005: 1, S0356: 1, S0354: 1, T0008: 1, S0007: 1, H0208: 1, S0046: 1, H0549: 1, H0455: 1, H0497: 1,
--	--	--	--	--

	H0574: 1, H0632: 1, H0486: 1, T0040: 1, T0060: 1, H0013: 1, H0069: 1, H0635: 1, H0156: 1, H0042: 1, H0036: 1, H0037: 1, S0346: 1, H0310: 1, H0251: 1, H0596: 1, H0597: 1, H0231: 1, H0050: 1, L0471: 1, H0099: 1, H0594: 1, H0267: 1, S0318: 1, H0364: 1, H0328: 1, H0622: 1, H0644: 1, H0674: 1, H0063: 1, H0268: 1, H0269: 1, H0059: 1, H0625: 1, S0440: 1, H0646: 1, H0649: 1, S0210: 1, L0762: 1, L0769: 1, L0796: 1, L0761: 1, L0773: 1, L0768: 1, L0364: 1, L0766: 1, L0803: 1, L0804: 1, L0653: 1, L0527: 1, L0657: 1, L0543: 1, H0519: 1, S0122: 1, H0365: 1, H0684: 1, H0659: 1, H0648: 1, S0328: 1, S0146: 1.
--	--

HOVJY54	982032	182	16 - 372	2357	Gly-1 to His-11, Pro-26 to Ser-34, Gly-50 to Glu-67, Gly-86 to Pro-91.	H0448: 1, S0432: 1, S3014: 1, S0028: 1, S0032: 1, L0751: 1, L0753: 1, S0031: 1, H0444: 1, L0596: 1, L0589: 1, L0362: 1, L0603: 1, S0011: 1, H0668: 1, H0653: 1, H0667: 1, S0276: 1, H0542: 1, H0423: 1, H0422: 1, S0458: 1, H0506: 1 and H0293: 1, L0809: 10, H0150: 4, L0769: 4, L0804: 4, L0757: 4, H0617: 3, L0779: 3, H0662: 2, L0005: 2, S0444: 2, H0545: 2, H0135: 2, H0494: 2, L0803: 2, L0783: 2, L0663: 2, H0547: 2, L0751: 2, L0777: 2, H0484: 1, H0661: 1, S0420: 1, S0354: 1, S0358: 1, H0619: 1, H0587: 1, H0427: 1, H0581: 1, H0196: 1, H0309: 1, H0123: 1, H0081: 1, H0594: 1, S0312: 1, H0688: 1, L0483: 1,	7q32	180105, 190900, 222800, 246900
---------	--------	-----	----------	------	---	--	------	---

								H0033: 1, H0424: 1, H0213: 1, H0316: 1, H0163: 1, H0087: 1, H0412: 1, H0059: 1, H0100: 1, T0041: 1, S0438: 1, S0144: 1, S0344: 1, L0770: 1, L0761: 1, L0800: 1, L0773: 1, L0662: 1, L0794: 1, L0375: 1, L0651: 1, L0379: 1, L0659: 1, L0383: 1, L0789: 1, H0520: 1, H0521: 1, H0696: 1, S0406: 1, S3014: 1, S0206: 1, L0747: 1, L0756: 1, L0780: 1, L0752: 1, L0601: 1, H0667: 1, H0542: 1 and H0543: 1.			
HLDOG74	982042	183	1 - 756	2358	Pro-37 to Ser-45, Asp-64 to Thr-69, Asp-151 to Gln-157, Arg-191 to Lys-196.	H0510: 1	17p13	138190, 254210, 271900, 600179, 600977, 601202, 601777			
HE8MM52	982197	184	19 - 1146	2359	Gly-10 to Gly-16, Pro-25 to Gly-30.	AR033: 3, AR061: 3, AR096: 3, AR089: 3, AR055: 2, AR060: 2,					

						AR039: 1, AR104: 0, AR052: 0, AR053: 0 S0414: 7, L0794: 4, H0651: 4, L0439: 3, L0749: 3, H0647: 2, L0766: 2, L0803: 2, L0659: 2, L0756: 2, L0599: 2, H0657: 1, H0645: 1, S0222: 1, H0574: 1, H0632: 1, H0486: 1, H0013: 1, H0014: 1, H0355: 1, S6028: 1, S0003: 1, H0673: 1, L0564: 1, S0438: 1, L0764: 1, L0804: 1, L0748: 1, L0754: 1, L0750: 1, L0779: 1, L0581: 1, L0608: 1, S0196: 1 and H0506: 1.			
HJBCC19	982465	185	2 - 949	2360	Cys-1 to Gly-6.	L0766: 5, L0749: 5, L0803: 3, L0809: 3, L0758: 3, S0007: 2, H0124: 2, H0135: 2, L0771: 2, L0744: 2, L0740: 2, L0747: 2, L0779: 2, L0600: 2, H0556: 1, S0116: 1, S0444: 1, H0393: 1, H0351: 1, L0118: 1,			

HODAA93	982618	186	3 - 899	2361	Val-50 to His-55, Ser-75 to Cys-81, Lys-98 to Lys-104.	H0038: 1, H0040: 1, T0042: 1, S0426: 1, L0763: 1, L0662: 1, L0775: 1, L0776: 1, L0659: 1, L0647: 1, L0666: 1, H0670: 1, L0439: 1, L0752: 1, L0595: 1 and H0721: 1. H0328: 1, H0615: 1, L0804: 1 and H0677: 1.	Xq28	300031, 300044, 300048, 300049, 300049, 300055, 300100, 300100, 300104, 300126, 301201, 301590, 302060, 302060, 302060, 302060, 302960, 303700, 303800, 303900, 304800, 305900,
---------	--------	-----	---------	------	--	--	------	--

								305900, 305900, 306700, 306995, 308310, 308840, 308840, 308840, 309200, 309548, 309620, 309900, 310300, 310400, 310460, 310460, 311300, 311510, 314300, 314400
								106165, 117700, 117700, 150210, 169600, 180380, 180380, 180380, 190000, 203500,
							3q21-q25	
							Pro-34 to Ser-42, Cys-82 to Lys-89, Ser-147 to Lys-156, Ser-198 to Cys-205.	
							2362	
							91 - 705	
							187	
							982764	
							HSPSI74	

								222900, 232050, 276902, 600882, 601199, 601199, 601199, 601471, 601682
HCEHZ42	983008	188	2115 - 2342	2363	Gly-12 to Pro-23, Gly-41 to Thr-47.	L0742: 11, L0439: 8, H0052: 5, L0794: 5, L0438: 5, S0222: 3, H0457: 3, H0135: 3, L0769: 3, L0768: 3, L0657: 3, L0666: 3, H0547: 3, H0423: 3, H0483: 2, S0354: 2, H0427: 2, H0581: 2, S0049: 2, H0494: 2, L0369: 2, L0662: 2, H0658: 2, L0752: 2, L0758: 2, L0592: 2, S0040: 1, H0650: 1, H0657: 1, L0427: 1, S0418: 1, S0358: 1, S0360: 1, H0580: 1, H0645: 1, H0550: 1, H0486: 1, L0309: 1, H0630: 1, H0687: 1, H0428: 1, H0622: 1,		

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

HDABW50	984168	191	56 - 523	2366	Arg-21 to Gly-28, Pro-30 to Ser-36, Arg-54 to Arg-61, Gln-125 to Gly-130, Ala-140 to Gln-145.	S0412: 19, H0657: 7, L0748: 7, L0777: 7, H0039: 6, H0659: 6, L0749: 6, H0040: 5, L0655: 5, L0747: 5, L0438: 4, L0742: 4, L0779: 4, L0758: 4, L0599: 4, H0341: 3, S0376: 3, H0497: 3, L0471: 3, H0015: 3, H0687: 3, H0090: 3, L0769: 3, L0776: 3, L0659: 3, L0517: 3, L0664: 3, H0672: 3, L0740: 3, L0752: 3, L0588: 3, L0605: 3, L0608: 3, L0362: 3, H0686: 2, H0662: 2, S0354: 2, S0360: 2, H0559: 2, H0098: 2, H0318: 2, H0545: 2, H0644: 2, L0455: 2, H0135: 2, H0038: 2, S0002: 2, L0646: 2, L0764: 2, L0803: 2, L0375: 2, L0666: 2, S0330: 2, H0539: 2, S0152: 2, H0436: 2, L0755: 2, L0731: 2, L0759: 2, S0434: 2,	6q25.3-q26	100678, 147280, 167000, 173350, 173350, 173350, 180020, 600320, 600883, 602544
---------	--------	-----	----------	------	---	---	------------	---

137

138

HAQBH11	985043	192	207 - 626	2367	Glu-12 to Arg-25, Leu-36 to Gly-41.	H0360: 12, L0747: 10, 17p13.3 L0748: 7, S0007: 6, L0731: 6, L0769: 5, L0766: 5, L0749: 5, L0740: 4, L0751: 4, L0750: 4, L0779: 4, L0471: 3, L0776: 3, L0526: 3, L0666: 3, L0439: 3, H0686: 2, S0408: 2, H0625: 2, L0639: 2, L0646: 2, L0768: 2, L0774: 2, L0655: 2, L0542: 2, L0790: 2, H0659: 2, H0134: 2, L0777: 2, L0755: 2, H0170: 1, T0002: 1, H0685: 1, H0295: 1, S0114: 1, H0663: 1, H0125: 1, S0444: 1, S0360: 1, H0580: 1, S0046: 1, H0351: 1, H0331: 1, L0623: 1, H0244: 1, H0156: 1, T0048: 1, H0052: 1, H0083: 1, H0266: 1, H0328: 1, H0031: 1, H0038: 1, H0412: 1, T0041: 1, S0438: 1, S0440: 1, L0520: 1, L0371: 1,	113721, 247200, 600059, 601545
---------	--------	-----	-----------	------	--	--	---

								L0770: 1, L5575: 1, L0761: 1, L0667: 1, L0764: 1, L0771: 1, L0662: 1, L0794: 1, L0803: 1, L0775: 1, L0375: 1, L0658: 1, L0789: 1, L0532: 1, L0665: 1, S0374: 1, H0693: 1, S0126: 1, H0365: 1, H0711: 1, H0684: 1, H0660: 1, S0330: 1, H0521: 1, H0631: 1, S3012: 1, L0742: 1, L0743: 1, L0752: 1, L0757: 1, L0758: 1, L0759: 1, L0480: 1, L0588: 1, L0591: 1, L0592: 1, H0665: 1, H0543: 1 and H0506: 1.			
HMVA W42	985280	193	1047 - 727	2368				S0212: 1, H0592: 1 and H0052: 1.			
HAGDF03	985323	194	1 - 690	2369	Pro-27 to His-33.			L0779: 3, S0010: 2, H0581: 1, H0081: 1, L0770: 1, L0794: 1, H0689: 1, H0666: 1, S0330: 1, L0593: 1, S0424: 1 and H0506: 1.	4		
HOPKI29	985401	195	2 - 547	2370	Glu-4 to Gly-12, Gly-15 to Lys-21.			L0750: 11, S0026: 7, L0518: 6, L0752: 6.	12		

				Lys-53 to Leu-59, Ala-113 to Asp-118, Glu-137 to Met-143, Thr-164 to Lys-170, Pro-175 to Glu-180.	L0588: 6, L0747: 5, L0758: 5, S0116: 4, L0769: 4, S0360: 3, H0599: 3, H0620: 3, H0059: 3, L0766: 3, L0775: 3, L0743: 3, L0731: 3, L0757: 3, H0543: 3, S0040: 2, T0049: 2, S0212: 2, H0305: 2, S0356: 2, S0358: 2, S0045: 2, S0278: 2, L0623: 2, S0003: 2, H0031: 2, H0412: 2, H0646: 2, S0142: 2, L0763: 2, L0764: 2, L0774: 2, L0776: 2, L0659: 2, L0789: 2, L0666: 2, S0126: 2, H0648: 2, H0694: 2, S3014: 2, L0754: 2, L0755: 2, H0445: 2, L0599: 2, S6024: 1, H0650: 1, L0808: 1, H0341: 1, H0484: 1, H0402: 1, H0638: 1, S0348: 1, S0376: 1, S0444: 1, H0440: 1, H0640: 1, H0409: 1, H0586: 1, L0586: 1, S0280: 1,		
--	--	--	--	---	--	--	--

142

HAJCA11	985580	196	391 - 1293	2371	Asp-23 to Ser-29, Lys-36 to Ala-48, Phe-66 to Arg-74, Gly-92 to Thr-98, Arg-137 to Asp-142, Met-155 to Ser-161.	L0366: 1, H0668: 1, H0653: 1, S0192: 1 and H0506: 1. L0471: 2, H0561: 2, H0543: 2, H0013: 1, H0090: 1, H0634: 1, H0551: 1 and H0560: 1.	2p16	126600, 126600, 136435, 160980, 600678	
HWAHA11	986078	197	1144 - 602	2372		AR061: 3, AR089: 3, AR096: 3, AR039: 2, AR060: 2, AR033: 1, AR104: 1, AR055: 1, AR052: 0, AR053: 0 L0751: 6, H0659: 4, H0657: 2, L0764: 2, L0655: 2, H0682: 2, H0521: 2, L0743: 2, L0749: 2, H0265: 1, T0049: 1, S0134: 1, H0255: 1, H0638: 1, S0358: 1, S0376: 1, H0637: 1, S0045: 1, H0549: 1, H0486: 1, T0060: 1, H0575: 1, H0581: 1, H0061: 1, H0266: 1, L0055: 1, H0068: 1, H0090: 1, H0551: 1, H0413: 1, S0142: 1, S0002: 1,			

							L0769: 1, L0775: 1, L0776: 1, L0657: 1, L0664: 1, H0658: 1, H0670: 1, H0648: 1, S0378: 1, L0779: 1, L0731: 1, L0601: 1 and H0423: 1.			
HSAMI43	986158	198	2 - 1477	2373	Glu-27 to Thr-33.		L0717: 2, H0660: 2, S0420: 1, S0376: 1, H0393: 1, H0013: 1, H0266: 1, H0038: 1, H0529: 1, L0800: 1, L0794: 1, L0766: 1, L0657: 1, L0666: 1, H0658: 1, H0626: 1, L0759: 1, H0665: 1, H0543: 1 and H0677: 1.			
HNFJH73	986165	199	1 - 609	2374	Ser-2 to Gly-7, Tyr-18 to Phe-26, Lys-39 to Gly-57, Gly-100 to Pro-106, Asn-109 to Ser-116, Tyr-119 to Ile-125, Pro-151 to Phe-157.		L0439: 10, L0740: 8, L0794: 7, L0805: 7, L0438: 6, H0539: 6, L0748: 6, L0754: 5, L0769: 4, L0776: 4, H0521: 4, H0615: 3, H0040: 3, H0100: 3, L0595: 3, H0624: 2, H0170: 2, H0656: 2, S0045: 2, H0013: 2, S0010: 2, H0051: 2, L0766: 2, L0774: 2, L0375: 2, L0806: 2,	3q28	165500, 600700	

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

HSUAA20	986744	201	2 - 1321	2376	Val-36 to Gly-52, Asp-140 to Ser-148, Ser-158 to Thr-163, Arg-168 to Ala-175, Gln-196 to Arg-205, Ser-271 to Lys-276, Val-281 to Tyr-294, Arg-305 to Met-310, Cys-314 to Ile-324, Gln-326 to Tyr-345, Phe-356 to Tyr-361, Leu-383 to Ala-390, Glu-412 to Ile-420.	S0374: 1, H0519: 1, ... H0659: 1, H0648: 1, L0748: 1, L0759: 1, S0436: 1 and L0608: 1, L0750: 12, L0747: 7, H0543: 7, L0748: 6, L0764: 3, H0539: 3, H0657: 2, L0785: 2, S0358: 2, H0266: 2, H0031: 2, L0766: 2, L0775: 2, L0783: 2, L0666: 2, L0663: 2, L0438: 2, H0435: 2, H0658: 2, H0670: 2, L0588: 2, H0542: 2, H0624: 1, S0342: 1, L0443: 1, L0808: 1, H0305: 1, L0481: 1, H0431: 1, H0438: 1, S0280: 1, L0021: 1, H0036: 1, H0004: 1, H0318: 1, N0006: 1, H0050: 1, L0471: 1, H0687: 1, S0003: 1, H0428: 1, L0455: 1, H0494: 1, H0625: 1, L0598: 1, L0763: 1, L0769: 1, L0761: 1, L0772: 1, L0641: 1, L0773: 1, L0662: 1,	17p13.3	113721, 247200, 600059, 601545
---------	--------	-----	----------	------	---	--	---------	---

							L0378: 1, L0806: 1, L0776: 1, L0657: 1, L0659: 1, L0517: 1, L0809: 1, L0647: 1, L0532: 1, S0126: 1, H0689: 1, H0690: 1, H0659: 1, H0660: 1, S0328: 1, H0518: 1, H0134: 1, L0740: 1, L0754: 1, L0749: 1, L0759: 1, L0591: 1, L0608: 1, L0362: 1, L0366: 1, H0136: 1 and S0398: 1.			
HSPAD08	986767	202	809 - 1054	2377	Pro-32 to Ser-37, Arg-52 to Gly-63, Lys-66 to Gly-73.	H0670: 4, S0408: 3, L0666: 3, L0665: 3, H0156: 1, H0615: 1, L0776: 1, L0527: 1, H0658: 1 and H0478: 1.	20q12-q13.2	118504, 118504, 131242, 139320, 139320, 139320, 139320, 600281, 600281, 602025		
HFKBA32	987018	203	1 - 618	2378	Phe-1 to Cys-10.	L0439: 7, L0438: 4, L0770: 3, L0809: 3, S0360: 2, H0011: 2, L0794: 2, H0672: 2, L0749: 2, L0756: 2, L0759: 2, S0046: 1,	20p12	112261, 176640, 176640, 176640, 236700, 601920		

148

HOENX16	987112	205	164 - 850	2380	Pro-3 to Val-18, Trp-21 to Gly-27.	L0805: 18, L0776: 16, L0751: 14, L0759: 10, L0770: 8, L0769: 6, L0758: 6, H0351: 4, L0803: 4, L0807: 4, L0754: 4, H0716: 3, S0250: 3, H0615: 3, H0644: 3, L0791: 3, L0793: 3, S0408: 2, H0013: 2, H0594: 2, H0591: 2, L0796: 2, L0521: 2, L0662: 2, L0794: 2, L0774: 2, L0518: 2, L0792: 2, L0666: 2, H0144: 2, H0670: 2, L0740: 2, L0779: 2, H0624: 1, S0342: 1, H0640: 1, H0369: 1, H0549: 1, H0486: 1, S0280: 1, L0021: 1, L0022: 1, S0010: 1, L0109: 1, H0024: 1, S0051: 1, H0428: 1, H0622: 1, H0032: 1, T0067: 1, H0059: 1, L0640: 1, L0763: 1, L0773: 1, L0659: 1, L0809: 1, L0788: 1, L0532: 1, L0665: 1, H0547: 1,	L0805: 18, L0776: 16, L0751: 14, L0759: 10, L0770: 8, L0769: 6, L0758: 6, H0351: 4, L0803: 4, L0807: 4, L0754: 4, H0716: 3, S0250: 3, H0615: 3, H0644: 3, L0791: 3, L0793: 3, S0408: 2, H0013: 2, H0594: 2, H0591: 2, L0796: 2, L0521: 2, L0662: 2, L0794: 2, L0774: 2, L0518: 2, L0792: 2, L0666: 2, H0144: 2, H0670: 2, L0740: 2, L0779: 2, H0624: 1, S0342: 1, H0640: 1, H0369: 1, H0549: 1, H0486: 1, S0280: 1, L0021: 1, L0022: 1, S0010: 1, L0109: 1, H0024: 1, S0051: 1, H0428: 1, H0622: 1, H0032: 1, T0067: 1, H0059: 1, L0640: 1, L0763: 1, L0773: 1, L0659: 1, L0809: 1, L0788: 1, L0532: 1, L0665: 1, H0547: 1,	6p22-p21	180297, 248611, 251000, 263200, 600211, 600701, 601690
---------	--------	-----	-----------	------	---------------------------------------	--	--	----------	--

									S0126: 1, S0328: 1, S0378: 1, S0037: 1, L0745: 1, L0750: 1, L0777: 1, L0780: 1, S0434: 1, L0361: 1, S0194: 1, S0398: 1, S0460: 1, H0008: 1 and H0352: 1.			
HTFOW71	987165	206	14 - 400	2381	Thr-1 to Ser-6.				L0766: 4, L0665: 4, L0754: 3, H0013: 2, H0052: 2, L0776: 2, H0144: 2, L0777: 2, L0622: 1, H0427: 1, S0344: 1, L0520: 1, L0774: 1, L0775: 1, L0527: 1, L0659: 1, L0666: 1, H0689: 1, H0682: 1, H0672: 1, H0522: 1, L0741: 1, L0750: 1, L0756: 1, L0758: 1 and S0424: 1.			
HTTAG03	987262	207	1270 - 68	2382	Pro-4 to Pro-27, Ala-35 to Arg-43, Asp-56 to Val-61.				L0439: 70, L0666: 20, L0748: 20, H0013: 15, L0663: 15, L0740: 15, L0754: 14, L0438: 12, L0769: 11, L0752: 11, H0046: 9, L0662: 9, L0776: 9, L0665: 9, H0547: 9, L0766: 8, H0670: 8, H0622: 7.			

151

152

153

					H0646: 1, S0002: 1, S0426: 1, L0598: 1, H0529: 1, L0762: 1, L0763: 1, L0371: 1, L5565: 1, L0667: 1, L0772: 1, L0641: 1, L0764: 1, L0773: 1, L0521: 1, L0626: 1, L0363: 1, L0767: 1, L0794: 1, L0381: 1, L0803: 1, L0774: 1, L0376: 1, L0805: 1, L0628: 1, L0807: 1, L0657: 1, L0658: 1, L0783: 1, L0792: 1, L0793: 1, H0725: 1, H0691: 1, H0520: 1, H0519: 1, H0690: 1, H0683: 1, H0435: 1, H0648: 1, H0651: 1, L0355: 1, S0328: 1, S0380: 1, H0710: 1, H0518: 1, S0406: 1, S0432: 1, S0028: 1, L0745: 1, L0750: 1, L0755: 1, S0031: 1, H0444: 1, H0445: 1, L0683: 1, S0434: 1, L0589: 1, L0590: 1, L0595: 1, L0366: 1,
--	--	--	--	--	--

							S0011: 1, H0667: 1, S0192: 1, S0276: 1, H0542: 1, S0462: 1 and H0506: 1.			
HNTNN89	987577	208	2 - 562	2383		Glu-134 to Val-139, Trp-147 to Lys-161, Ala-163 to Pro-172.	S0250: 4, S0358: 3, N0006: 3, H0620: 3, H0014: 3, H0656: 2, H0024: 2, L0776: 2, L0750: 2, S0212: 1, H0450: 1, H0549: 1, H0550: 1, H0575: 1, H0036: 1, H0590: 1, H0050: 1, L0471: 1, H0373: 1, H0628: 1, H0038: 1, H0551: 1, H0264: 1, H0100: 1, H0494: 1, H0509: 1, L0790: 1, H0520: 1, H0435: 1, H0521: 1, S0027: 1, S0032: 1, L0759: 1, S0434: 1, L0485: 1, L0595: 1, H0542: 1, H0543: 1 and S0021: 1.			
HRADQ96	987636	209	165 - 398	2384		Pro-5 to Gly-13, Gly-26 to Gly-34, Leu-49 to Glu-62, Gly-67 to Val-78.	L0758: 4, L0803: 3, L0779: 3, L0794: 2, L0776: 2, L0789: 2, H0555: 2, L0748: 2, L0731: 2, H0622: 1, L0800: 1, L0809: 1,	6p21.3	106300, 108800, 120290, 120290, 120810, 120820,	

156

				H0616: 5, L0664: 5, L0744: 5, L0754: 5, L0749: 5, H0662: 4, S0476: 4, H0251: 4, S0022: 4, H0641: 4, L0806: 4, L0663: 4, S0126: 4, H0696: 4, L0439: 4, L0756: 4, L0362: 4, L0002: 3, H0411: 3, H0600: 3, H0013: 3, H0597: 3, H0231: 3, L0774: 3, L0805: 3, S0146: 3, L0759: 3, S0436: 3, L0603: 3, H0624: 2, H0170: 2, H0717: 2, S0212: 2, H0255: 2, S0418: 2, H0580: 2, H0729: 2, L0717: 2, H0592: 2, H0586: 2, H0575: 2, H0036: 2, H0590: 2, H0024: 2, H0373: 2, S0250: 2, H0039: 2, H0622: 2, L0483: 2, S0366: 2, H0038: 2, H0551: 2, L0564: 2, H0494: 2, S0352: 2, S0002: 2, L0770: 2, L0772: 2, L0800: 2, L0641: 2,
--	--	--	--	--

158

				H0100: 1, S0112: 1, T0041: 1, H0509: 1, H0646: 1, S0208: 1, L0763: 1, L0769: 1, L0372: 1, L0771: 1, L0773: 1, L0648: 1, L0521: 1, L0364: 1, L0794: 1, L0533: 1, L0379: 1, L0807: 1, L0512: 1, L0782: 1, L0384: 1, L0647: 1, L0788: 1, L0665: 1, S0374: 1, L0565: 1, L0438: 1, H0547: 1, H0689: 1, H0683: 1, H0684: 1, H0658: 1, S0330: 1, S0380: 1, L0602: 1, S0152: 1, S0013: 1, S0406: 1, H0555: 1, H0631: 1, S0432: 1, S0037: 1, S3014: 1, S0027: 1, S0028: 1, L0755: 1, L0757: 1, H0444: 1, L0596: 1, L0588: 1, L0591: 1, L0485: 1, S0011: 1, S0026: 1, S0192: 1, S0194: 1, S0456: 1, H0506: 1 and H0008: 1.
--	--	--	--	---

HCOPH23	987900	211	268 - 603	2386			S0386: 1, H0670: 1 and 2q36 H0444: 1.		120070, 120131, 120131, 138030, 147545, 259900, 262000
HEEAQ78	988159	212	466 - 149	2387	Ala-9 to Phe-15, Gly-44 to Pro-52, Pro-100 to Lys-106.	H0549: 2, H0023: 2, H0024: 2, L0750: 2, H0624: 1, L0659: 1, L0809: 1, L0740: 1, L0747: 1 and L0731: 1.	17q23	106180, 138700, 139250, 150200, 154275, 176960, 249000, 253250	
HOFNY16	988363	213	2 - 853	2388	Ala-1 to Thr-9, Arg-62 to Trp-77, Arg-176 to Pro-181, Val-191 to Leu-198, Lys-265 to Lys-272, Asn-276 to Val-283.	L0766: 5, L0755: 5, L0770: 4, L0659: 4, L0750: 4, L0752: 4, S0360: 3, L0764: 3, L0662: 3, L0774: 3, L0740: 3, L0731: 3, L0759: 3, S0132: 2, H0411: 2, H0188: 2, H0413: 2, L0598: 2, L0805: 2, L0782: 2, L0664: 2, H0144: 2, L0751: 2, L0749: 2, S0194: 2, H0624: 1, H0713: 1, S0218: 1, S0116: 1, H0663: 1.			

HSLCX45	988441	214	1 - 1458	2389	His-11 to Pro-18,	L0481: 1, S0376: 1, H0415: 1, H0586: 1, H0587: 1, T0109: 1, H0545: 1, H0046: 1, H0123: 1, T0023: 1, H0166: 1, H0038: 1, H0551: 1, H0264: 1, H0059: 1, T0042: 1, H0494: 1, H0560: 1, S0440: 1, H0529: 1, L0762: 1, L0763: 1, L0769: 1, L0796: 1, L0637: 1, L0772: 1, L0646: 1, L0800: 1, L0771: 1, L0768: 1, L0649: 1, L0803: 1, L0661: 1, L0657: 1, L0532: 1, S0374: 1, H0520: 1, S0126: 1, S0122: 1, H0659: 1, H0658: 1, H0660: 1, S0404: 1, S0037: 1, S3014: 1, S0206: 1, L0748: 1, L0747: 1, L0756: 1, L0757: 1, L0758: 1, S0434: 1, S0436: 1, L0591: 1, L0608: 1, L0595: 1 and S0276: 1.	S0436: 10, L0803: 6,	19q12
---------	--------	-----	----------	------	-------------------	--	----------------------	-------

162

							S0049: 1, H0052: 1, H0544: 1, H0545: 1, H0201: 1, T0010: 1, H0083: 1, S0003: 1, H0328: 1, H0428: 1, H0039: 1, H0622: 1, L0483: 1, S0364: 1, H0038: 1, H0551: 1, H0264: 1, T0069: 1, L0564: 1, T0041: 1, H0641: 1, H0529: 1, L0642: 1, L0764: 1, L0771: 1, L0364: 1, L0649: 1, L0388: 1, L0776: 1, L0809: 1, L0530: 1, L0663: 1, L0664: 1, H0547: 1, H0670: 1, H0672: 1, S0350: 1, S0406: 1, H0478: 1, S0027: 1, S0028: 1, L0748: 1, L0746: 1, L0756: 1, L0599: 1, H0542: 1, H0423: 1, H0422: 1 and L0697: 1.			
HLMJB09	988499	215	249 - 506	2390	Gln-10 to Lys-15, Pro-28 to Gln-33.		H0255: 1, H0002: 1, H0266: 1, L0803: 1, H0660: 1, L0751: 1 and L0777: 1.			
HOVEF60	988526	216	113 - 724	2391	Tyr-18 to Lys-23,		H0428: 8, L0603: 2			

HOGDR72	988536	217	2 - 415	2392	Pro-32 to Arg-44, Pro-51 to Gly-56. Lys-56 to Leu-70, Gln-85 to Ala-91, Met-123 to Asn-133.	and S0114: 1. H0617: 10, S0410: 8, L0769: 7, H0038: 6, L0439: 6, L0750: 6, L0752: 6, L0758: 6, S0360: 5, L0775: 5, S0406: 5, H0150: 4, L0157: 4, H0620: 4, H0087: 4, S0440: 4, S0344: 4, L0763: 4, S0328: 4, L0747: 4, H0224: 3, H0484: 3, H0402: 3, S0049: 3, H0708: 3, L0773: 3, L0805: 3, L0809: 3, L0519: 3, H0670: 3, L0748: 3, L0731: 3, L0757: 3, L0581: 3, H0295: 2, H0341: 2, S0444: 2, S0222: 2, L0622: 2, H0253: 2, H0309: 2, T0115: 2, H0544: 2, H0545: 2, H0081: 2, H0012: 2, H0673: 2, S0036: 2, H0616: 2, L0770: 2, L0518: 2, H0725: 2, S0374: 2, H0696: 2, L0588: 2, H0543: 2,	13	
---------	--------	-----	---------	------	---	--	----	--

165

						S0142: 1, L0598: 1, L3904: 1, L0761: 1, L0772: 1, L0764: 1, L0767: 1, L0768: 1, L0766: 1, L0649: 1, L0803: 1, L0774: 1, L0375: 1, L0806: 1, L0776: 1, L0517: 1, L0526: 1, L0783: 1, L0789: 1, H0144: 1, L0438: 1, H0689: 1, H0690: 1, H0682: 1, H0683: 1, H0435: 1, H0659: 1, H0648: 1, H0521: 1, H0522: 1, S3014: 1, S0027: 1, L0755: 1, L0759: 1, H0445: 1, H0343: 1, H0595: 1, L0608: 1, H0136: 1, S0276: 1, H0542: 1, L0600: 1 and H0352: 1.		
HOCMF20	988556	218	1 - 366	2393	Gly-1 to Ser-20, Phe-29 to Asn-37, Asn-55 to Tyr-64, Ala-69 to Asp-78, Tyr-82 to Ala-91, Lys-100 to Glu-122.	S0328: 4, L0731: 3, S0356: 2, H0013: 2, L0794: 2, L0649: 2, H0435: 2, L0748: 2, L0749: 2, L0750: 2, L0758: 2, L0592: 2, H0685: 1, S0420: 1, S0360: 1, H0575: 1,		

								L0471: 1, S0362: 1, H0030: 1, H0031: 1, H0068: 1, H0038: 1, H0412: 1, H0413: 1, H0538: 1, L0637: 1, L0768: 1, L0766: 1, L0658: 1, L0659: 1, H0144: 1, H0547: 1, S0126: 1, H0659: 1, H0660: 1, S0027: 1, L0754: 1, L0786: 1, L0779: 1, L0755: 1 and L0757: 1.			
HAMHH26	988737	219	309 - 773	2394	Ala-12 to Asn-18.			H0618: 1, H0081: 1, T0010: 1, H0560: 1, L0763: 1, L0803: 1 and L0790: 1.			
HHFOX44	988904	220	3 - 659	2395				S0212: 20, L0751: 14, L0663: 11, L0731: 11, H0083: 10, L0657: 10, L0666: 10, H0547: 10, H0550: 7, H0620: 6, L0769: 6, H0689: 6, H0123: 5, H0428: 5, L0662: 5, S0356: 4, H0059: 4, L0664: 4, H0520: 4, H0670: 4, L0581: 4, S0418: 3, L0717: 3, H0618: 3, H0494: 3, S0438: 3,	2q33-q34	100730, 118800, 123660, 135600, 157655, 186860, 201460, 205100, 213700, 262000, 600258, 601277, 601318	

L0770: 3, L0659: 3, H0683: 3, H0660: 3, L0747: 3, L0758: 3, S0434: 3, H0543: 3, H0624: 2, H0295: 2, H0341: 2, H0662: 2, S0358: 2, S0360: 2, H0675: 2, S0408: 2, H0251: 2, H0051: 2, H0594: 2, H0687: 2, H0615: 2, H0031: 2, H0413: 2, H0100: 2, L0637: 2, L0648: 2, L0803: 2, L0774: 2, L0783: 2, L0665: 2, S0374: 2, S0126: 2, H0658: 2, H0672: 2, S0378: 2, S0406: 2, L0439: 2, L0605: 2, H0352: 2, H0170: 1, H0686: 1, H0685: 1, H0294: 1, S0180: 1, S0298: 1, H0661: 1, H0664: 1, S0420: 1, S0442: 1, S0354: 1, S0376: 1, H0637: 1, H0329: 1, S0007: 1, H0208: 1, H0645: 1, H0549: 1, H0391: 1, H0392: 1, H0331: 1,
--

HPWDE54	989029	221	1 - 2127	2396	Met-1 to Ile-6, Cys-13 to Ser-20, Asp-40 to Ser-46, Asp-48 to Ser-62, Ser-70 to Tyr-80, Glu-83 to Ser-89, Leu-108 to Ser-119,	H0632: 1, T0109: 1, H0575: 1, H0545: 1, H0009: 1, H0024: 1, H0057: 1, H0373: 1, H0188: 1, H0288: 1, H0286: 1, H0644: 1, H0617: 1, H0606: 1, H0087: 1, L0564: 1, S0440: 1, L0772: 1, L0374: 1, L0794: 1, L0652: 1, L0653: 1, L0809: 1, L0543: 1, H0693: 1, H0593: 1, H0690: 1, H0682: 1, H0684: 1, H0666: 1, S0330: 1, S0380: 1, H0696: 1, H0555: 1, S0027: 1, L0748: 1, L0750: 1, L0779: 1, L0755: 1, L0759: 1, H0445: 1, S0436: 1, L0597: 1, L0599: 1, H0542: 1 and S0384: 1, AR055: 8, AR096: 4, AR053: 4, AR104: 3, AR089: 3, AR061: 3, AR039: 3, AR060: 3, AR033: 3, AR052: 1, L0777: 4, H0052: 3, L0438: 2, L0748: 2,		
---------	--------	-----	----------	------	---	---	--	--

					Cys-138 to Trp-154, Glu-198 to Val-227, Lys-251 to Asp-264, Asp-407 to Glu-415, Ile-456 to Val-462, Ser-470 to His-476, Phe-478 to Ser-492, Arg-500 to Asp-507, Asn-595 to Ala-603, Leu-638 to Leu-648, Lys-667 to Asn-673, Trp-684 to Ile-691, Ser-698 to Glu-709.				S0212: 1, S0376: 1, H0438: 1, H0318: 1, L0471: 1, H0375: 1, H0038: 1, H0551: 1, L0763: 1, L0764: 1, L0767: 1, L0794: 1, L0775: 1, L0805: 1, L0653: 1, H0648: 1, S0044: 1, L0742: 1, L0439: 1, L0747: 1, L0750: 1, S0031: 1, H0445: 1, L0590: 1 and H0543: 1.			
HNOAX46	989183	222	1 - 789	2397						H0556: 17, H0305: 15, S0414: 14, L0665: 14, H0402: 12, S0360: 11, L0663: 11, L0777: 11, L0766: 9, L0664: 9, L0752: 9, L0362: 9, L0662: 8, L0754: 8, S0408: 7, L0776: 7, L0666: 7, H0648: 7, S0406: 7, L0758: 7, H0422: 7, L0803: 6, L0655: 6, H0696: 6, H0657: 5, H0486: 5, L0770: 5, L0659: 5, H0144: 5, S0328: 5, L0742: 5, L0731: 5, H0423: 5, H0265: 4,		

				H0306: 4, S0280: 4, H0644: 4, H0169: 4, L0775: 4, H0672: 4, S0330: 4, H0710: 4, H0522: 4, S0027: 4, L0744: 4, L0747: 4, H0170: 3, H0341: 3, H0255: 3, S0132: 3, H0411: 3, H0549: 3, T0060: 3, H0581: 3, H0309: 3, H0594: 3, H0615: 3, L0483: 3, H0674: 3, H0063: 3, H0494: 3, L0769: 3, L0761: 3, L0771: 3, L0653: 3, L0809: 3, S0374: 3, S0126: 3, H0670: 3, H0436: 3, L0750: 3, L0779: 3, L0780: 3, H0506: 3, H0624: 2, H0295: 2, T0049: 2, H0583: 2, H0650: 2, H0656: 2, H0669: 2, H0661: 2, H0663: 2, H0589: 2, S0476: 2, S0278: 2, S6022: 2, H0431: 2, H0574: 2, L0021: 2, H0274: 2, H0545: 2, L0471: 2, H0051: 2,
--	--	--	--	--

172

				H0333: 1, H0331: 1, H0013: 1, H0244: 1, H0427: 1, H0599: 1, H0706: 1, S0010: 1, S0346: 1, H0318: 1, H0251: 1, H0123: 1, H0012: 1, H0620: 1, T0003: 1, S0050: 1, H0014: 1, S0024: 1, H0239: 1, H0510: 1, H0247: 1, H0271: 1, H0188: 1, H0028: 1, S0250: 1, S0003: 1, H0328: 1, T0023: 1, H0031: 1, H0553: 1, H0628: 1, H0040: 1, H0634: 1, H0087: 1, H0551: 1, T0067: 1, H0488: 1, H0623: 1, H0059: 1, H0561: 1, S0440: 1, H0131: 1, H0633: 1, H0652: 1, S0142: 1, S0344: 1, S0210: 1, H0529: 1, L0520: 1, L0646: 1, L0765: 1, L0648: 1, L0767: 1, L0794: 1, L0649: 1, L0650: 1, L0375: 1, L0651: 1, L0806: 1, L0654: 1,		
--	--	--	--	--	--	--

174

HO0JB32	989321	224	460 - 1173	2399	Ser-75 to Ala-92, Ala-106 to Met-123, Pro-125 to Gln-131, Asp-175 to Asn- 182, Val-197 to Arg-224.	L0777: 7, L0766: 5, L0663: 3, H0660: 3, L0752: 3, L0758: 3, H0650: 2, H0124: 2, L0646: 2, L0740: 2, H0445: 2, L0588: 2, L0485: 2, S0424: 2, H0657: 1, H0341: 1, S0358: 1, S0360: 1, S0046: 1, H0385: 1, H0586: 1, L0477: 1, H0004: 1, H0052: 1, H0596: 1, H0373: 1, H0083: 1, H0375: 1, H0376: 1, H0059: 1, H0494: 1, S0150: 1, L0369: 1, L0763: 1, L0764: 1, L0662: 1, L0768: 1, L0803: 1, L0775: 1, L0776: 1, L0659: 1, L0666: 1, L0665: 1, H0144: 1, S0126: 1, H0659: 1, H0648: 1, S0330: 1, S0378: 1, S0152: 1, H0436: 1, S0390: 1, L0581: 1 and H0668: 1.		
HMWJJ35	989323	225	303 - 452	2400		H0171: 1, H0341: 1, L0157: 1, H0083: 1, H0068: 1, H0038: 1,	13q14.3	277900, 600631

HHFIA95	989396	226	105 - 188	2401	Phe-2 to Cys-10.	H0616: 1 and L0519: 1, L0438: 4, L0754: 4, H0521: 3, H0624: 2, S0356: 2, S0132: 2, L0803: 2, L0806: 2, L0439: 2, L0749: 2, L0779: 2, L0759: 2, H0556: 1, H0686: 1, L0002: 1, H0661: 1, S0376: 1, H0580: 1, H0586: 1, H0544: 1, H0050: 1, L0471: 1, H0620: 1, H0373: 1, H0051: 1, H0083: 1, H0594: 1, S6028: 1, S0003: 1, H0622: 1, H0032: 1, H0169: 1, H0040: 1, H0264: 1, H0560: 1, S0422: 1, L0369: 1, L0373: 1, L0646: 1, L0774: 1, L0784: 1, L0653: 1, L0776: 1, L0663: 1, H0593: 1, S0328: 1, H0539: 1, S0027: 1, L0752: 1, L0731: 1, L0605: 1, L0591: 1, L0604: 1 and H0542: 1.		
HSPSH36	989607	227	71 - 259	2402	Pro-26 to Glu-49, Asp-58 to Pro-63.			

HAAA25	989952	228	1136 - 534	2403	Lys-14 to Glu-23, Glu-30 to Ser-43, Ser-45 to His-54, Thr-66 to Tyr-71, Pro-75 to Asp-80, Ile-98 to Thr-120, Glu-125 to Lys-133, Leu-146 to Ala-152, Ala-170 to Ile-176, Asp-180 to Cys-200.	H0318: 1, H0646: 1 and L0366: 1.	8q24.12- q24.13	133700, 133700, 150230, 190080, 190350
HTMJ16	990060	229	268 - 645	2404	His-8 to Ser-15, Ser-21 to Gly-32, Arg-51 to Ala-57, Phe-71 to Leu-78, Gly-87 to Glu-92.	L0777: 10, H0616: 4, L0758: 4, L0761: 3, L0766: 3, H0648: 3, L0749: 3, L0750: 3, L0755: 3, H0318: 2, H0545: 2, H0373: 2, H0038: 2, S0438: 2, S0422: 2, L0774: 2, L0375: 2, L0657: 2, L0518: 2, H0659: 2, L0731: 2, L0759: 2, H0685: 1, H0294: 1, H0656: 1, L0808: 1, S0420: 1, H0586: 1, L0622: 1, H0486: 1, T0082: 1, S0010: 1, S0049: 1, L0471: 1, H0615: 1, L0520: 1, L0762: 1, L0763: 1, L0770: 1, L0769: 1,		

HWLAB90	990146	230	2 - 682	2405	Glu-I to Val-14, Arg-123 to Gly-128.	L0372: 1, L0646: 1, L0767: 1, L0768: 1, L0803: 1, L0776: 1, L0658: 1, L0636: 1, L0368: 1, L0666: 1, L0664: 1, L0665: 1, H0682: 1, H0658: 1, H0666: 1, S0330: 1, S0406: 1, S0027: 1, L0747: 1, L0779: 1, L0780: 1, L0753: 1 and L0757: 1.		
						L0748: 6, L0774: 4, L0439: 4, L0749: 4, L0764: 3, L0771: 3, L0775: 3, L0665: 3, S0408: 2, H0644: 2, L0766: 2, L0649: 2, S0374: 2, L0747: 2, S0282: 1, H0662: 1, S0442: 1, S0354: 1, H0586: 1, H0156: 1, L0021: 1, H0239: 1, H0494: 1, S0440: 1, H0695: 1, L0762: 1, L0761: 1, L0648: 1, L0803: 1, L0804: 1, L0666: 1, L0663: 1, H0689: 1, H0658: 1, H0648: 1, S0380: 1,		

HOSED43	990184	231	2 - 790	2406	Gln-81 to Cys-86, Lys-170 to Asp-181.	S0044: 1, L0755: 1, L0758: 1 and H0423: 1. AR089: 23, AR096: 19, AR039: 16, AR052: 16, AR060: 13, AR033: 11, AR055: 10, AR104: 9, AR053: 4, AR061: 3 H0024: 2, L0594: 2, H0542: 2, H0657: 1, S0214: 1, L0761: 1, L0766: 1, H0435: 1, H0658: 1, S0380: 1, L0753: 1 and L0759: 1.		
HNODF50	990254	232	761 - 165	2407	Gly-1 to Gln-11, Pro-111 to Pro-126, Lys-174 to Ser-179, Leu-181 to Leu-190.	H0617: 10, S0126: 7, S0404: 5, L0747: 5, L0779: 5, H0253: 4, H0545: 4, L0766: 4, S0328: 4, L0742: 4, L0752: 4, H0686: 3, S0420: 3, S0358: 3, S0046: 3, S0278: 3, H0592: 3, H0618: 3, H0100: 3, L0769: 3, H0519: 3, L0743: 3, L0758: 3, H0341: 2, H0484: 2, H0333: 2, H0327: 2, H0544: 2, H0046: 2, H0594: 2, T0042: 2, H0494: 2.		

			S0426: 2, L0763: 2, L0761: 2, L0764: 2, L0519: 2, L0532: 2, L0665: 2, H0435: 2, H0651: 2, S0330: 2, H0539: 2, S0206: 2, L0751: 2, L0755: 2, S0106: 2, H0543: 2, H0422: 2, H0624: 1, H0171: 1, H0657: 1, H0656: 1, S0282: 1, S0029: 1, H0663: 1, H0662: 1, H0459: 1, S0418: 1, S0354: 1, H0393: 1, H0351: 1, S6016: 1, S0220: 1, H0370: 1, H0586: 1, H0497: 1, L0623: 1, T0114: 1, H0069: 1, L0021: 1, H0575: 1, H0052: 1, H0309: 1, H0231: 1, H0546: 1, H0041: 1, H0009: 1, H0050: 1, H0024: 1, L0163: 1, H0510: 1, H0266: 1, H0284: 1, H0286: 1, H0688: 1, H0428: 1, L0194: 1, T0006: 1, H0213: 1, H0553: 1, H0644: 1,					
--	--	--	--	--	--	--	--	--

	H0628: 1, H0181: 1, H0598: 1, S0036: 1, H0040: 1, H0634: 1, H0616: 1, H0087: 1, H0059: 1, T0041: 1, H0561: 1, H0509: 1, H0647: 1, S0144: 1, S0142: 1, H0538: 1, S0002: 1, L0520: 1, L0772: 1, L0643: 1, L0771: 1, L0773: 1, L0662: 1, L0794: 1, L0386: 1, L0774: 1, L0776: 1, L0527: 1, L0657: 1, L0515: 1, L0659: 1, L0517: 1, L0542: 1, L0545: 1, L0666: 1, L0664: 1, H0593: 1, H0689: 1, H0690: 1, H0682: 1, H0659: 1, H0670: 1, H0518: 1, S0146: 1, H0436: 1, H0576: 1, S0390: 1, S0037: 1, S3014: 1, L0748: 1, L0754: 1, L0749: 1, L0753: 1, S0031: 1, H0445: 1, L0596: 1, H0668: 1, H0667: 1, S0242: 1, S0194: 1,				
--	--	--	--	--	--

HLWBV17	990255	233	144 - 542	2408	Pro-46 to Pro-60, Lys-108 to Ser-113, Leu-115 to Leu-124.	S0196: 1, H0423: 1 and H0008: 1. H0617: 10, S0126: 7, S0404: 5, L0747: 5, L0779: 5, H0253: 4, H0545: 4, L0766: 4, S0328: 4, L0742: 4, L0752: 4, H0686: 3, S0420: 3, S0358: 3, S0046: 3, S0278: 3, H0592: 3, H0618: 3, H0100: 3, L0769: 3, L0665: 3, H0519: 3, L0743: 3, L0758: 3, H0341: 2, H0484: 2, H0333: 2, H0327: 2, H0544: 2, H0046: 2, H0594: 2, T0042: 2, H0494: 2, S0426: 2, L0763: 2, L0761: 2, L0764: 2, L0519: 2, L0532: 2, H0435: 2, H0651: 2, S0330: 2, H0539: 2, S0206: 2, L0751: 2, L0755: 2, S0106: 2, H0543: 2, H0422: 2, H0624: 1, H0171: 1, H0657: 1, H0656: 1, S0282: 1, S0029: 1, H0663: 1,		
---------	--------	-----	-----------	------	---	--	--	--

183

184

		H0551: 5, I10624: 4, H0012: 4, S0027: 4, L0747: 4, H0665: 4, H0586: 3, T0039: 3, I10575: 3, H0014: 3, H0252: 3, L0142: 3, H0038: 3, H0616: 3, S0037: 3, L0748: 3, S0298: 2, H0486: 2, H0244: 2, I10427: 2, H0318: 2, H0050: 2, L0471: 2, H0284: 2, H0286: 2, I10328: 2, I10032: 2, H0591: 2, S0390: 2, S0206: 2, S0196: 2, S0462: 2, H0170: 1, H0222: 1, S0430: 1, H0661: 1, S0356: 1, S0354: 1, S0360: 1, H0645: 1, H0393: 1, I10549: 1, H0370: 1, H0485: 1, H0270: 1, H0599: 1, H0042: 1, H0594: 1, S0003: 1, S0022: 1, S0214: 1, L0053: 1, H0030: 1, H0553: 1, H0644: 1, H0124: 1, S0366: 1, H0598: 1, H0090: 1, H0040: 1,		
--	--	--	--	--

186

			L0595: 2, H0624: 1, S0040: 1, S0342: 1, H0657: 1, S0212: 1, S0420: 1, S0045: 1, H0441: 1, H0497: 1, H0333: 1, H0559: 1, H0486: 1, T0109: 1, H0253: 1, H0309: 1, H0545: 1, H0123: 1, H0081: 1, H0024: 1, S0388: 1, T0010: 1, H0594: 1, H0266: 1, H0292: 1, H0286: 1, H0252: 1, H0615: 1, H0039: 1, H0048: 1, H0644: 1, H0617: 1, H0598: 1, H0135: 1, H0063: 1, H0164: 1, H0433: 1, H0625: 1, H0561: 1, L0065: 1, H0131: 1, S0150: 1, H0633: 1, H0538: 1, S0208: 1, H0529: 1, L0770: 1, L0637: 1, L0800: 1, L0374: 1, L0644: 1, L0363: 1, L0794: 1, L0766: 1, L0388: 1, L0533: 1, L0804: 1, L0650: 1, L0540: 1, L0809: 1,		
--	--	--	--	--	--

188

HODGN92	990611	237	101 - 505	2412	H0229: 1, L0717: 1, H0497: 1, H0486: 1, H0244: 1, H0318: 1, H0581: 1, H0596: 1, L0041: 1, H0009: 1, H0563: 1, H0572: 1, L0471: 1, H0266: 1, S0214: 1, H0252: 1, H0039: 1, L0055: 1, S0036: 1, H0090: 1, H0412: 1, H0623: 1, H0059: 1, S0038: 1, H0494: 1, S0150: 1, L0637: 1, L0641: 1, L0764: 1, L0771: 1, L0803: 1, L0804: 1, L0775: 1, L0375: 1, L0657: 1, L0518: 1, L0809: 1, L5623: 1, L0666: 1, H0144: 1, H0701: 1, H0711: 1, H0659: 1, H0670: 1, H0660: 1, H0648: 1, L0602: 1, S0028: 1, L0744: 1, L0748: 1, L0780: 1, S0436: 1, L0591: 1, L0594: 1, L0366: 1 and H0665: 1, H0615: 1 and H0660: 1.	
---------	--------	-----	-----------	------	---	--

HPDRP30	990751	238	1166 - 2098	2413	Gln-1 to Pro-11, Val-15 to Arg-23, Arg-44 to Arg-59, Thr-70 to Gln-75, Ala-153 to Gln-168, Pro-187 to Pro-194, Pro-204 to Asp-214.	H0618: 12, H0253: 4, L0771: 4, S0358: 2, H0688: 2, H0658: 2, H0651: 2, L0439: 2, L0777: 2, H0445: 2, S6024: 1, H0484: 1, S0420: 1, S0376: 1, H0619: 1, H0609: 1, H0586: 1, H0642: 1, H0427: 1, H0196: 1, H0309: 1, H0546: 1, H0009: 1, H0123: 1, H0292: 1, H0553: 1, H0617: 1, H0551: 1, H0264: 1, S0440: 1, H0646: 1, L0372: 1, L0646: 1, L0803: 1, L0658: 1, L0659: 1, L0783: 1, L0788: 1, L0438: 1, H0690: 1, H0660: 1, H0648: 1, H0479: 1, L0744: 1, L0779: 1, L0758: 1, S0436: 1, H0542: 1 and H0423: 1.			
HBXFN09	990769	239	95 - 145	2414		H0438: 1 and L0749: 1.			
HDTBO75	990913	240	184 - 324	2415			1p22.1- p21.3	170995, 600309, 601414,	

HELGN26	991014	241	3 - 902	2416	Arg-1 to Asn-18.	S0045: 1		602094
HODCU15	991048	242	828 - 1592	2417	Thr-57 to Glu-63, Ala-66 to Val-75, Glu-77 to Phe-86, Asp-199 to Gly-211.	AR055: 1, AR096: 1, AR089: 1, AR060: 1, AR104: 1, AR039: 1, AR061: 1, AR053: 1, AR033: 0, AR052: 0 S0418: 1, H0328: 1 and L0758: 1.		
HOGDI51	991268	243	1 - 543	2418	Phe-102 to Pro-111, His-136 to Lys-141.	H0038: 1, H0435: 1 and L0592: 1.	9q34	125270, 125270, 128100, 137350, 191100, 215700, 223360, 268900, 601850
HLWAF02	991516	244	156 - 449	2419	Arg-1 to Ser-6, Phe-13 to Gln-24, Glu-31 to Arg-40, Ser-48 to Asn-56, Asp-69 to Val-75.	H0553: 1 and L0758: 1.	2q	
HRKPA16	991654	245	296 - 502	2420	Asn-47 to Phe-58.	L0748: 3, L0759: 3, H0366: 2, L0666: 2, L0665: 2, L0602: 2, S0136: 2, L0751: 2, L0779: 2, S0442: 1, L0717: 1, L0738: 1, T0010: 1, S0003: 1.		

HPDQX94	991761	246	90 - 650	2421	Asp-15 to Ser-25, Ser-33 to Val-38, Lys-181 to Phe-187.	H0622: 1, H0673: 1, H0674: 1, H0388: 1, H0412: 1, T0041: 1, S0422: 1, S0426: 1, L0638: 1, L0662: 1, L0768: 1, L0766: 1, L0775: 1, L0805: 1, L0655: 1, L0657: 1, L0512: 1, L0659: 1, L0663: 1, L0664: 1, H0670: 1, S0406: 1, H0678: 1, L0745: 1, L0756: 1, L0752: 1, S0436: 1, L0581: 1 and L0601: 1.	4q28-q31	107250, 134820, 134820, 134820, 134820, 134830, 134850, 134850, 181600, 189800, 266300
---------	--------	-----	----------	------	---	--	----------	--

193

	T0023: 2, H0561: 2, S0440: 2, L0766: 2, L0809: 2, H0547: 2, H0519: 2, S0126: 2, H0659: 2, H0672: 2, S0330: 2, L0754: 2, L0745: 2, L0750: 2, H0506: 2, H0265: 1, H0556: 1, S0040: 1, H0717: 1, H0294: 1, H0583: 1, H0657: 1, L0785: 1, H0669: 1, S0420: 1, L0005: 1, S0376: 1, H0619: 1, H0351: 1, S0222: 1, S0220: 1, H0431: 1, T0039: 1, H0618: 1, T0110: 1, H0570: 1, H0569: 1, L0471: 1, H0292: 1, H0031: 1, L0055: 1, H0166: 1, H0169: 1, H0068: 1, S0036: 1, H0163: 1, H0359: 1, S0450: 1, H0647: 1, H0646: 1, S0344: 1, L0638: 1, L0372: 1, L0641: 1, L0643: 1, L0662: 1, L0768: 1, L0775: 1, L0653: 1, L0776: 1,
--	--

195

							L0623: 1, H0014: 1, H0051: 1, S0388: 1, H0688: 1, H0428: 1, H0424: 1, H0213: 1, H0401: 1, H0111: 1, H0617: 1, H0163: 1, H0063: 1, H0551: 1, T0041: 1, S0002: 1, L0764: 1, L0648: 1, L0662: 1, L0650: 1, L0774: 1, L0523: 1, L0378: 1, L0655: 1, L4501: 1, H0690: 1, H0659: 1, H0658: 1, H0521: 1, H0436: 1, L0777: 1 and L0601: 1.			
HODFO57	992973	250	2 - 811	2425	Trp-31 to Thr-39, Asn-71 to Gln-76, Pro-134 to Thr-150, Lys-238 to Lys-243.					
HOCFZ44	993380	251	139 - 540	2426	Arg-1 to Glu-6, Arg-52 to Ala-58, Phe-72 to Leu-79, Gly-88 to Glu-93, Tyr-124 to Arg-134.					L0518: 4, S0356: 3, H0617: 3, L0777: 3, H0486: 2, H0544: 2, H0545: 2, H0373: 2, H0547: 2, H0660: 2, L0757: 2, L0604: 2, H0423: 2, H0656: 1, H0341: 1, H0484: 1, H0483: 1, H0661: 1, S0360: 1, S0045: 1,

197

198

							AR104: 5, AR039: 5, AR096: 4, AR061: 4, AR053: 4, AR052: 4 L0522: 3, L0748: 2, H0171: 1, H0686: 1, L0034: 1, H0615: 1, L0764: 1, L0794: 1, S0052: 1, S0374: 1 and L0601: 1.			
HODGN51	993754	254	94 - 342	2429	Lys-12 to Ser-18, Lys-20 to Lys-25, Thr-38 to His-43, Lys-53 to Cys-64.		H0615: 3			
HODCT60	993806	255	212 - 559	2430	Ile-7 to Trp-17, Asn-54 to Lys-64, Thr-85 to Met-91.		S0001: 1, H0328: 1 and H0615: 1.			
HAQBV81	993918	256	3 - 623	2431	Gln-1 to Arg-7, Gly-18 to Thr-24, Glu-26 to Glu-32, His-76 to Thr-88, Gln-122 to His-129, Pro-184 to Glu-190.		L0809: 7, L0758: 7, L0754: 5, S0007: 4, L0662: 4, L0794: 4, L0665: 4, H0333: 3, L0769: 3, L0761: 3, L0768: 3, L0803: 3, L0439: 3, H0395: 2, S0222: 2, H0039: 2, H0124: 2, S0036: 2, L0535: 2, L0666: 2, H0658: 2, L0751: 2, L0747: 2, L0759: 2, L0591: 2, L0485: 2, H0624: 1, H0716: 1,			

200

201

HSKGR42	994234	259	126 - 410	2434	Asp-8 to Glu-16, Thr-24 to Lys-35, Asn-37 to Glu-44, Leu-65 to Asp-95.	H0519: 1 and S014: 1.		
HOEBQ85	994356	260	1065 - 706	2435		L0747: 4, L0758: 3, L0794: 2, L0649: 2, L0749: 2, L0759: 2, H0624: 1, H0333: 1, L0598: 1, L0773: 1, L0661: 1, L4501: 1, S0126: 1, H0682: 1, S0328: 1, H0521: 1, L0748: 1, L0750: 1, L0780: 1, L0755: 1 and S0436: 1.		
HOPJG01	994536	261	1390 - 257	2436	Ala-41 to Ser-46, Gly-57 to Gly-62, Glu-91 to Asn-111, Gln-113 to Pro-120, Val-128 to Ser-133, His-142 to Arg-149, Thr-177 to Leu-184, Arg-206 to Ile-214, Phe-261 to Trp-270, Asn-298 to Phe-305, Gln-315 to Gly-320.	H0052: 25, T0006: 15, L0596: 12, S0222: 11, H0009: 10, L0753: 10, H0441: 9, L0439: 9, L0752: 9, S0358: 8, H0253: 8, H0618: 7, H0231: 7, L0769: 7, H0144: 7, S0374: 7, H0550: 6, L0775: 6, L0745: 6, L0747: 6, S6024: 5, H0597: 5, H0178: 5, S0388: 5, S0051: 5, H0399: 5, L0750: 5, L0731: 5, S0007: 4, H0351: 4,	14q32	123270, 245200, 251600, 270100, 276900

				S0049: 4, H0204: 4, H0100: 4, L0509: 4, L0542: 4, L0783: 4, L0742: 4, L0746: 4, L0777: 4, L0366: 4, S0300: 3, H0261: 3, H0549: 3, H0497: 3, H0156: 3, S0010: 3, H0085: 3, N0006: 3, S0003: 3, S0036: 3, H0641: 3, L0770: 3, L0499: 3, L0776: 3, L0659: 3, L0665: 3, H0519: 3, H0684: 3, L0756: 3, L0758: 3, L0608: 3, S0424: 3, H0506: 3, H0624: 2, H0170: 2, S6026: 2, H0592: 2, S0346: 2, H0196: 2, H0235: 2, H0596: 2, H0150: 2, H0103: 2, S0050: 2, H0201: 2, T0010: 2, H0213: 2, H0674: 2, L0455: 2, H0038: 2, L0764: 2, L0766: 2, L0375: 2, L0782: 2, L0528: 2, L0666: 2, L0438: 2, H0520: 2, H0672: 2, S0044: 2,
--	--	--	--	--

204

HKBAK06	994596	262	213 - 410	2437	Asn-1 to Arg-7, Ser-26 to Arg-31, Gln-36 to Trp-41, Pro-59 to Lys-66.	L0627: 1, L0372: 1, L0646: 1, L0363: 1, L0768: 1, L0364: 1, L0803: 1, L0774: 1, L0784: 1, L0805: 1, L0653: 1, L0657: 1, L0526: 1, L0384: 1, L0809: 1, L0530: 1, L0368: 1, L0664: 1, H0547: 1, H0689: 1, H0682: 1, H0659: 1, H0660: 1, L0355: 1, S0378: 1, S3012: 1, S3014: 1, L0741: 1, L0748: 1, L0751: 1, L0786: 1, L0757: 1, S0031: 1, H0445: 1, L0593: 1, L0595: 1, S0106: 1, S0011: 1; S0460: 1 and H0008: 1.	L0748: 25, L0750: 16, S0126: 6, L0751: 6, L0752: 6, L0758: 6, L0770: 5, L0769: 5, L0771: 5, L0740: 5, L0754: 5, L0749: 5, L0757: 5, H0341: 4, H0494: 4, L0806: 4, H0547: 4, H0666: 4, L0747: 4, L0731: 4,	8q21	124080, 202010, 202010, 214400, 602476, 602667
---------	--------	-----	-----------	------	--	---	--	------	---

206

HKGCN61	994664	263	1016 - 486	2438	Pro-1 to Ser-8.	L0767: 1, L0364: 1, L0766: 1, L0775: 1, L0805: 1, L0776: 1, L0655: 1, L0518: 1, L0382: 1, L0666: 1, L0663: 1, H0711: 1, H0690: 1, H0682: 1, H0670: 1, S0380: 1, S0013: 1, H0696: 1, H0704: 1, H0631: 1, H0595: 1, L0592: 1, L0581: 1, L0594: 1, L0601: 1, H0668: 1, S0194: 1, H0543: 1 and H0422: 1.	12q24.1	124200, 147440, 160781, 181405, 261600, 261600, 601406, 601620, 601621
---------	--------	-----	------------	------	-----------------	--	---------	--

208

HTXDY55	994699	264	2 - 289	2439	L0657: 1, L0656: 1, L0809: 1, L0647: 1, L0788: 1, L0790: 1, L0664: 1, L0665: 1, S0374: 1, H0519: 1, H0689: 1, H0682: 1, H0659: 1, H0672: 1, H0651: 1, S0330: 1, H0539: 1, S0380: 1, H0522: 1, H0696: 1, S0028: 1, S0206: 1, L0745: 1, L0749: 1, L0780: 1, L0755: 1, H0445: 1, L0605: 1, L0366: 1 and H0423: 1.	5p15.2-pter	
					L0659: 4, L0666: 4, L0665: 4, H0486: 3, L0663: 3, L0759: 3, L0471: 2, H0288: 2, H0031: 2, L0769: 2, L0646: 2, L0794: 2, L0766: 2, L0657: 2, L0664: 2, L0601: 2, H0422: 2, H0265: 1, H0556: 1, H0224: 1, H0686: 1, H0685: 1, L0785: 1, S0356: 1, S0358: 1, S0376: 1, S0360: 1, S0007: 1, S0046: 1, S0132: 1,		

210

HOFNLI18	994874	266	1 - 405	2441	Ser-26 to Pro-33.	AR039: 15, AR089: 8, AR033: 8, AR096: 8, AR053: 7, AR052: 7, AR060: 5, AR055: 5, AR104: 5, AR061: 3 H0415: 1 and H0414: 1.		
HOFNT57	994954	267	3 - 1175	2442	Asp-1 to Gly-15.			
HCBMT45	994993	268	1670 - 360	2443	Ser-157 to Asn-167, Asn-192 to Lys-198.	L0731: 8, L0757: 6, L0794: 5, L0809: 5, L0770: 3, L0803: 3, L0789: 3, L0750: 3, L0759: 3, H0038: 2, L0769: 2, L0805: 2, L0659: 2, L0665: 2, S0037: 2, L0742: 2, L0743: 2, L0748: 2, L0754: 2, L0747: 2, L0758: 2, S0436: 2, L0599: 2, L0608: 2, H0624: 1, H0661: 1, H0638: 1, S0358: 1, H0728: 1, H0733: 1, H0586: 1, H0587: 1, H0642: 1, S0010: 1, H0052: 1, H0544: 1, H0046: 1, L0471: 1, H0083: 1, H0179: 1, H0252: 1, H0688: 1, H0617: 1, H0606: 1,		

								H0673: 1, H0135: 1, H0264: 1, H0059: 1, H0560: 1, S0440: 1, S0150: 1, H0633: 1, S0344: 1, S0002: 1, L3904: 1, L0800: 1, L0773: 1, L0804: 1, L0774: 1, L0775: 1, L0806: 1, H0144: 1, L0438: 1, H0519: 1, H0684: 1, H0435: 1, H0651: 1, H0521: 1, L0740: 1, L0749: 1, L0752: 1, H0595: 1, S0434: 1 and H0542: 1.			
HATDZ56	995200	269	120 - 1154	2444	Thr-23 to Pro-34, Glu-39 to Asp-83, Asn-89 to Lys-99, Asp-118 to Asp- 128, Asn-135 to Glu-150, Glu-153 to Gly-168, Gly-181 to Thr-187, Arg-200 to Asp-205, Arg-273 to Ile-279, Thr-295 to Asp-300, Thr-316 to Cys-321.			L0438: 2, H0156: 1, H0004: 1, L0748: 1 and L0749: 1.			
HOCQI44	995229	270	2 - 520	2445	Ser-14 to Ala-21, Pro-80 to Tyr-85, Pro-99 to Gly-105,			L0771: 6, L0794: 4, L0748: 4, H0659: 3, L0749: 3, H0624: 2,	20		

213

214

Arg-239 to Phe-247, Leu-263 to Asn-268.	H0657: 7, L0776: 7, L0747: 7, H0135: 6, H0494: 6, L0649: 6, H0547: 6, L0439: 6, L0752: 6, L0758: 6, H0341: 5, H0046: 5, L0769: 5, L0771: 5, H0519: 5, L0731: 5, H0543: 5, S0134: 4, S0358: 4, S0360: 4, H0486: 4, H0083: 4, H0509: 4, L0774: 4, L0655: 4, L0438: 4, H0520: 4, L0777: 4, L0757: 4, H0265: 3, H0580: 3, S0132: 3, H0575: 3, H0581: 3, H0052: 3, L0471: 3, H0266: 3, H0687: 3, H0428: 3, H0551: 3, H0529: 3, L0517: 3, L0519: 3, L0666: 3, H0593: 3, H0658: 3, H0648: 3, H0521: 3, S0028: 3, L0742: 3, L0749: 3, L0597: 3, L0588: 3, L0589: 3, L0592: 3, L0485: 3, L0600: 3, H0624: 2, H0170: 2, S0418: 2.
--	--

216

L0603: 2, H0136: 2, H0423: 2, H0422: 2, H0293: 2, H0171: 1, T0002: 1, H0222: 1, H0159: 1, H0685: 1, H0295: 1, H0294: 1, L0785: 1, H0661: 1, H0663: 1, S0376: 1, H0340: 1, H0351: 1, S0222: 1, H0392: 1, H0497: 1, H0574: 1, H0013: 1, H0250: 1, H0156: 1, H0599: 1, H0042: 1, T0082: 1, S0010: 1, H0263: 1, T0115: 1, T0110: 1, H0546: 1, H0545: 1, H0019: 1, H0012: 1, H0047: 1, H0197: 1, H0023: 1, H0020: 1, H0107: 1, T0010: 1, H0510: 1, S0250: 1, S0022: 1, H0328: 1, L0194: 1, T0006: 1, H0553: 1, L0055: 1, H0674: 1, L0456: 1, H0708: 1, H0068: 1, H0376: 1, H0163: 1, H0040: 1, H0634: 1, T0067: 1, H0487: 1

218

219

HCRNO02	995894	274	537 - 319	2449	Phe-3 to Ala-9.	H0327: 1, S0388: 1, H0275: 1, H0083: 1, S0022: 1, S0214: 1, H0252: 1, H0604: 1, H0031: 1, H0628: 1, H0673: 1, H0135: 1, H0090: 1, H0591: 1, H0616: 1, H0551: 1, H0264: 1, H0623: 1, H0059: 1, H0494: 1, L0475: 1, H0561: 1, H0131: 1, S0344: 1, L0770: 1, L0769: 1, L0772: 1, L0804: 1, L0774: 1, L0655: 1, L0532: 1, H0144: 1, H0593: 1, H0659: 1, H0670: 1, H0704: 1, H0215: 1, S0406: 1, L0745: 1, L0596: 1, L0588: 1, S0026: 1, H0136: 1, S0276: 1, H0542: 1, H0543: 1 and S0460: 1.	S0356: 1 and L0780: 1. 8q21	124080, 202010, 202010, 214400, 602476, 602667
---------	--------	-----	-----------	------	-----------------	---	-----------------------------	---

HCBO179	996247	275	42 - 701	2450	Pro-9 to Gln-15, Glu-37 to Ala-49, Glu-70 to Leu-78, Thr-99 to Thr-122, Leu-144 to Gln-150, Gln-161 to Arg-167.	H0670: 3, H0624: 1, H0661: 1, S0354: 1, S0360: 1, S0278: 1, H0559: 1, H0150: 1, H0024: 1, H0510: 1, H0551: 1, H0413: 1, S0328: 1, H0555: 1 and L0759: 1.		
HVCAB73	996337	276	84 - 1259	2451	Arg-4 to Gly-24, Lys-47 to Phe-55, Lys-61 to Ala-67, Gly-108 to Thr-114, Pro-184 to Pro-191, Pro-292 to Arg-299, Pro-355 to Glu-392.	H0046: 22, H0547: 15, L0748: 13, S0152: 9, H0013: 7, H0009: 7, H0031: 7, H0529: 7, H0519: 7, L0471: 6, H0024: 6, H0266: 6, H0090: 6, H0520: 6, H0542: 6, H0543: 6, H0521: 5, L0439: 5, H0422: 5, S0420: 4, H0373: 4, H0040: 4, H0494: 4, H0561: 4, L0747: 4, L0592: 4, L0593: 4, L0595: 4, S0026: 4, H0423: 4, H0556: 3, H0657: 3, H0656: 3, L0005: 3, S0354: 3, S0408: 3, H0580: 3, S0045: 3, S0046: 3, S0132: 3, S0278: 3, H0586: 3, T0110: 3, H0620: 3,		

222

				H0158: 1, S0040: 1, S0342: 1, S0134: 1, H0650: 1, H0255: 1, H0661: 1, H0663: 1, H0449: 1, H0125: 1, S0444: 1, H0675: 1, H0393: 1, H0370: 1, H0357: 1, H0333: 1, H0643: 1, H0574: 1, T0039: 1, H0706: 1, H0036: 1, H0390: 1, S0346: 1, H0421: 1, S0049: 1, H0196: 1, H0251: 1, H0085: 1, H0562: 1, H0123: 1, H0047: 1, H0023: 1, H0014: 1, H0051: 1, H0071: 1, H0356: 1, H0239: 1, H0594: 1, H0188: 1, H0687: 1, H0290: 1, S0312: 1, S0214: 1, L0194: 1, H0604: 1, H0628: 1, H0169: 1, H0674: 1, H0212: 1, S0366: 1, H0063: 1, H0269: 1, T0069: 1, L0351: 1, L0435: 1, T0041: 1, T0042: 1, S0440: 1, H0509: 1, S0150: 1,				
--	--	--	--	--	--	--	--	--

								H0130: 1, H0633: 1, S0210: 1, L0598: 1, L0625: 1, L0649: 1, L0776: 1, L0517: 1, L0382: 1, L0367: 1, L0793: 1, L0663: 1, H0697: 1, H0593: 1, H0689: 1, H0670: 1, H0660: 1, S0380: 1, H0522: 1, H0694: 1, H0134: 1, S0406: 1, S0037: 1, L0754: 1, L0752: 1, L0755: 1, L0757: 1, L0759: 1, L0596: 1, L0599: 1, H0665: 1, H0667: 1, H0136: 1, S0196: 1, S0452: 1 and H0506: 1.			
HSDJH04	996619	277	114 - 419	2452	Arg-1 to Ser-20.	L0731: 3, H0632: 1, H0052: 1, H0628: 1, L0766: 1, L0636: 1, L0545: 1, L0543: 1, H0658: 1, L0740: 1, L0750: 1, L0752: 1, S0260: 1 and H0293: 1.	11p15	108985, 186921, 602092			
HSOAN18	996804	278	630 - 409	2453	Val-1 to Asn-6.	L0755: 3, L0766: 2, L0794: 1, L0759: 1 and H0343: 1.					
HHEHF49	996874	279	698 - 222	2454		H0684: 38, H0703: 27, H0685: 23, H0717: 21.					

225

HAHCK58	997127	281	1 - 228	2456	Glu-1 to Thr-9, Asn-17 to Ser-34.	L0762: 1, L0766: 1, L0791: 1, L0666: 1, H0547: 1, H0435: 1, H0521: 1, L0751: 1, L0750: 1 and L0780: 1.	172400, 173850, 180901, 180901, 207750, 221770, 248600, 258501, 600918, 602716
						L0748: 16, S0007: 7, H0360: 7, H0046: 6, L0803: 5, L0747: 5, L0771: 4, L0794: 4, L0731: 4, H0486: 3, L0666: 3, L0663: 3, L0665: 3, L0439: 3, L0758: 3, H0637: 2, H0261: 2, S0222: 2, H0052: 2, S0051: 2, H0622: 2, H0169: 2, L0598: 2, L0637: 2, H0144: 2, H0436: 2, L0754: 2, H0170: 1, S0134: 1, H0650: 1, S0116: 1, S0282: 1, S0418: 1, S0376: 1, H0580: 1, S0045: 1, H0393: 1, L0622: 1, L0623: 1, S0280: 1,	

227

228

HRGDC33	997862	284	229 - 738	2459		L0591: 1 and S0011: 1, H0134: 1 and L0756: 1.		
HMTMB91	997873	285	1037 - 1174	2460	Lys-1 to Arg-46.	L0794: 11, L0803: 10, H0013: 6, H0090: 6, L0766: 6, L0663: 6, L0731: 6, H0457: 5, H0328: 5, L0493: 5, L0666: 5, L0777: 5, L0759: 5, L0754: 4, L0779: 4, H0305: 3, L0665: 3, H0144: 3, H0670: 3, H0696: 3, L0591: 3, H0657: 2, S0442: 2, S0360: 2, L0717: 2, H0600: 2, H0156: 2, H0590: 2, H0024: 2, H0615: 2, L0483: 2, T0042: 2, S0422: 2, H0529: 2, L0625: 2, L0805: 2, L0776: 2, L0655: 2, L0527: 2, S0374: 2, H0521: 2, H0436: 2, L0745: 2, L0588: 2, L0581: 2, L0361: 2, H0542: 2, S0424: 2, H0624: 1, H0171: 1, H0686: 1, T0049: 1, H0650: 1, H0656: 1,		

230

HFAAD07	998059	286	238 - 957	2461	Ser-62 to Thr-67, Val-74 to Cys-79, Thr-118 to Gln-132, Glu-204 to Asp-219, Pro-225 to Arg-235.	L0526: 1, L0519: 1, L0788: 1, L0790: 1, L0791: 1, L0664: 1, S0296: 1, H0520: 1, H0547: 1, H0519: 1, S0126: 1, H0682: 1, H0659: 1, H0658: 1, H0660: 1, H0672: 1, S0380: 1, H0518: 1, H0525: 1, S0404: 1, S0406: 1, H0479: 1, S0432: 1, L0744: 1, L0750: 1, L0780: 1, L0753: 1, L0604: 1, S0106: 1, S0242: 1, S0196: 1, H0543: 1, H0423: 1 and S0452: 1.		
HE8TG67	998517	287	1211 - 1360	2462	Pro-24 to His-31.	L0809: 5, L0439: 4, L0591: 2, S6024: 1, H0341: 1, H0346: 1, S0356: 1, S0358: 1, S0360: 1, L0040: 1, H0457: 1, H0494: 1, L0518: 1, L0666: 1, L0665: 1, S0330: 1, H0521: 1, L0752: 1, L0731: 1, L0758: 1, L0590: 1 and L0599: 1.		165500, 600700

HACNC39	998533	288	36 - 380	2463	Glu-14 to Lys-25.	L0748: 9, L0769: 7, L0776: 6, L0747: 6, L0768: 5, L0775: 5, L0750: 5, S0358: 4, S0144: 4, L0763: 4, L0731: 4, L0757: 4, L0588: 4, H0657: 3, S0046: 3, H0545: 3, S0438: 3, S0422: 3, L0770: 3, L0517: 3, S0406: 3, L0755: 3, T0049: 2, H0341: 2, S0408: 2, S0410: 2, H0580: 2, S0222: 2, H0586: 2, L0622: 2, T0109: 2, H0083: 2, H0551: 2, H0100: 2, H0396: 2, S0440: 2, S0210: 2, L0520: 2, L0764: 2, L0767: 2, L5574: 2, L0540: 2, L0518: 2, L0809: 2, S0330: 2, S0380: 2, L0758: 2, S0031: 2, H0543: 2, H0170: 1, H0685: 1, H0716: 1, H0295: 1, S0212: 1, S0110: 1, S0282: 1, S0420: 1, S0444: 1, H0351: 1, H0411: 1,		
---------	--------	-----	----------	------	-------------------	--	--	--

HCOQP78	998901	289	45 - 989	2464	Thr-10 to Ala-18, Pro-56 to His-64, Pro-66 to Leu-74, Ser-81 to Asp-86, Glu-93 to Trp-101, Leu-143 to Gln-151, Pro-162 to Asp-171, Thr-216 to Asp-224, Pro-235 to Gln-246, Lys-258 to Gly-268, Trp-283 to Gly-295.	S0396: 1. H0494: 4, L0794: 3, H0670: 2, L0751: 2, H0661: 1, H0602: 1, H0587: 1, H0014: 1, H0688: 1, L0376: 1, L0806: 1, L0657: 1 and L4501: 1.	19q13	109560, 205900, 600652, 600757
HCGMA67	998905	290	2 - 664	2465		H0521: 22, L0601: 8, H0266: 7, S0126: 7, L0748: 6, H0556: 4, S0356: 4, S0358: 4, H0052: 4, L0771: 4, L0655: 4, L0777: 4, H0599: 3, H0581: 3, H0046: 3, H0615: 3, H0038: 3, H0616: 3, S0144: 3, L0766: 3, L0664: 3, L0665: 3, H0547: 3, S014: 3, L0758: 3, L0759: 3, L0596: 3, H0542: 3, H0423: 3, H0295: 2, T0049: 2, S0360: 2, H0580: 2, S0045: 2, S0132: 2, H0393: 2.		

			S0222: 2, H0586: 2, H0486: 2, H0013: 2, H0108: 2, H0575: 2, H0050: 2, H0644: 2, H0169: 2, H0623: 2, S0142: 2, S0344: 2, L0659: 2, L0809: 2, L0666: 2, H0144: 2, S0374: 2, H0522: 2, S3012: 2, S0027: 2, L0743: 2, L0740: 2, L0754: 2, L0780: 2, L0594: 2, S0276: 2, H0170: 1, T0002: 1, H0222: 1, S0040: 1, H0713: 1, H0650: 1, H0657: 1, S0282: 1, H0255: 1, H0663: 1, H0459: 1, H0638: 1, S0418: 1, S0420: 1, S0354: 1, S0376: 1, H0339: 1, S0468: 1, S0140: 1, H0619: 1, L0717: 1, H0415: 1, H0438: 1, H0497: 1, H0250: 1, H0069: 1, S0346: 1, H0421: 1, H0194: 1, L0040: 1, H0178: 1, H0620: 1, H0014: 1, H0051: 1,				
--	--	--	--	--	--	--	--

236

HSKHK19	998968	291	2 - 673	2466	Ala-1 to Arg-26, Thr-32 to Gln-37.	L0605: 1, L0581: 1, L0595: 1, L0603: 1, H0665: 1, S0192: 1, H0543: 1 and H0422: 1. L0769: 7, L0751: 6, L0666: 4, L0749: 3, H0030: 2, S0002: 2, L0805: 2, L0653: 2, H0657: 1, H0675: 1, S0007: 1, L0717: 1, H0635: 1, L0021: 1, H0068: 1, H0494: 1, L0638: 1, L0639: 1, L0772: 1, L0764: 1, L0773: 1, L0648: 1, L0803: 1, L0784: 1, L0806: 1, L0657: 1, H0658: 1, S3014: 1, L0747: 1, L0750: 1, L0780: 1, L0759: 1, L0588: 1, L0601: 1 and H0542: 1.	7q35-q36	118425, 118425, 118425, 142335, 152427, 163729, 176450, 180105, 190605, 276000, 276000, 600510, 600725
HAGGR59	999124	292	30 - 596	2467	Asp-20 to Ile-37, Arg-63 to Met-71, Gly-80 to Gly-95, Lys-98 to Thr-162.	H0556: 1, H0650: 1, S0001: 1, S0376: 1, S0346: 1, H0328: 1, L0800: 1, L0649: 1, H0689: 1, H0660: 1 and H0445: 1.		
HOPKS83	999148	293	419 - 1894	2468	Pro-72 to Tyr-80, Pro-98 to Ser-108,	S0278: 22, L0439: 20, L0665: 16, L0438: 15,		

				H0039: 2, H0622: 2, H0553: 2, H0617: 2, H0135: 2, H0412: 2, S0038: 2, L0351: 2, H0494: 2, S0426: 2, L0769: 2, L0637: 2, L0646: 2, L0773: 2, L0648: 2, L0768: 2, L0774: 2, L0775: 2, L0651: 2, L0352: 2, H0520: 2, H0519: 2, H0435: 2, H0651: 2, H0696: 2, S0028: 2, L0744: 2, L0740: 2, L0749: 2, L0750: 2, L0779: 2, L0780: 2, L0753: 2, S0260: 2, L0361: 2, H0667: 2, H0170: 1, H0685: 1, S0040: 1, S0180: 1, S0212: 1, H0254: 1, S0354: 1, S0376: 1, H0676: 1, S0408: 1, S0007: 1, S0300: 1, H0437: 1, H0261: 1, H0441: 1, H0392: 1, H0455: 1, H0586: 1, H0587: 1, H0574: 1, H0559: 1, H0486: 1, L0586: 1, H0427: 1,				
--	--	--	--	--	--	--	--	--

240

							S0390: 1, S3014: 1, L0754: 1, L0752: 1, H0445: 1, H0668: 1, H0653: 1, H0665: 1, S0276: 1, H0542: 1, S0458: 1 and H0352: 1.		
HE8CY70	999157	294	691 - 1368	2469		Lys-117 to Pro-123, Asp-132 to Lys-137, Ala-153 to Met-158, Ser-166 to Asp-172, Lys-184 to Tyr-190, Glu-199 to Lys-205.	H0441: 3, H0672: 2, H0555: 2, H0208: 1, S6016: 1, S0222: 1, H0586: 1, H0013: 1, S0049: 1, H0052: 1, H0545: 1, H0046: 1, S0051: 1, T0023: 1, H0617: 1, H0264: 1, H0647: 1, L0438: 1, L0751: 1, L0756: 1 and H0506: 1.		
HPCTI53	999243	295	1 - 474	2470		Pro-1 to Pro-6, Thr-134 to Gln-140, Tyr-142 to Arg-150.	H0052: 45, H0384: 21, Xq11 L0748: 20, S0222: 14, S0010: 9, H0441: 6, S0049: 6, L0456: 6, S0346: 5, L0769: 5, S6028: 4, H0428: 4, L0770: 4, L0638: 4, L0438: 4, H0659: 4, L0750: 4, L0753: 4, H0619: 3, S0300: 3, T0010: 3, S0036: 3, H0624: 2, H0717: 2, S6024: 2, H0156: 2,	Xq11	313700, 313700, 313700, 313700, 313700

242

							L0768: 1, L0803: 1, L0806: 1, L0776: 1, L0636: 1, L0783: 1, L0789: 1, L0663: 1, H0520: 1, H0660: 1, H0666: 1, S0378: 1, L0741: 1, L0756: 1, L0777: 1, L0759: 1, L0599: 1, L0366: 1, S0384: 1 and S0446: 1.		
HOPKN50	999313	296	65 - 1582	2471	Glu-47 to Phe-69, Lys-76 to Lys-82, Gly-87 to Ser-98, Glu-107 to Asp-117, Leu-171 to Val-180.		H0341: 2, H0013: 2, L0471: 2, H0266: 2, H0144: 2, L0591: 2, S0011: 2, H0624: 1, H0657: 1, H0151: 1, H0083: 1, H0328: 1, H0316: 1, H0591: 1, H0616: 1, H0412: 1, H0561: 1, S0210: 1, H0684: 1, S0152: 1, L0748: 1, L0749: 1, S0026: 1, H0542: 1 and H0543: 1.		
HAPAI17	999778	297	2 - 115	2472	Val-13 to Gln-26.		H0042: 1, L0769: 1 and H0659: 1.		
HHAUV59	999808	298	14 - 715	2473	Glu-1 to Gly-12, Lys-32 to Arg-37, Asn-45 to Ser-58, Asp-82 to Gln-97, Gly-136 to Gln-142,		L0761: 3, H0740: 2, L0803: 2, L0718: 2, H0624: 1, S0418: 1, H0208: 1, H0013: 1, H0427: 1, H0544: 1,		

HTXLL31	1000315	299	1 - 747	2474	Pro-176 to Pro-199, Val-219 to Pro-226.	H0622: 1, L0769: 1, L0789: 1, H0547: 1, H0519: 1, L0750: 1 and S0434: 1.		
					Ile-5 to Lys-10, Glu-47 to Leu-57, Glu-144 to Pro-151, Lys-212 to Asn-217, Pro-219 to Leu-228.	L0803: 6, L0731: 6, L0596: 6, L0665: 5, H0591: 3, L0794: 3, L0804: 3, L0748: 3, L0777: 3, L0717: 2, H0586: 2, L0471: 2, H0622: 2, H0641: 2, L0771: 2, L0662: 2, L0766: 2, L0649: 2, L0664: 2, H0682: 2, H0670: 2, H0539: 2, H0518: 2, L0758: 2, L0759: 2, H0445: 2, S0242: 2, H0422: 2, H0171: 1, H0556: 1, H0657: 1, H0656: 1, H0341: 1, S0282: 1, S0354: 1, S0360: 1, H0574: 1, H0427: 1, H0575: 1, H0057: 1, H0014: 1, H0551: 1, H0646: 1, H0529: 1, L0763: 1, L0761: 1, L0764: 1, L5574: 1, L0775: 1, L0805: 1, L0776: 1, L0657: 1.		

							L0659: 1, L0789: 1, L0666: 1, H0144: 1, H0435: 1, H0658: 1, S0328: 1, S0330: 1, H0522: 1, S0037: 1, L0747: 1, L0755: 1, H0707: 1 and H0506: 1.			
HDPUH64	1000339	300	2 - 499	2475			H0615: 5, L0766: 4, H0272: 1, H0560: 1, H0521: 1 and H0677: 1.			
HTTHS93	1000424	301	725 - 1024	2476			S0360: 2, H0266: 2, S0330: 2, L0748: 2, H0556: 1, S0442: 1, L0471: 1, H0024: 1, H0634: 1, H0494: 1, H0560: 1, L0800: 1, L0803: 1, H0435: 1, H0651: 1, H0521: 1, H0522: 1, S0406: 1, L0747: 1 and S0452: 1.			
HMVCG79	1000582	302	3 - 854	2477	Thr-40 to Arg-46, Leu-59 to Ser-68, Leu-236 to Thr-241, Asp-278 to His-284.		AR089: 6, AR060: 5, AR033: 4, AR104: 4, AR096: 4, AR039: 3, AR052: 3, AR053: 3, AR061: 2, AR055: 1 S0002: 4, S0206: 4, L0748: 2, L0740: 2, L0777: 2, S0212: 1, H0661: 1, S0278: 1, H0370: 1, H0123: 1,			

							S0142: 1, L0800: 1, L0790: 1, H0539: 1, H0555: 1, S3014: 1, S0028: 1, L0754: 1 and L0759: 1.			
HODHK20	1000669	303	52 - 648	2478		Gly-2 to Ile-8, Glu-13 to Ser-25, Glu-41 to Gly-52.	H0615: 2, S0376: 1, L0766: 1 and L0754: 1.			
HCHMO53	1000875	304	2 - 661	2479		Pro-2 to Gly-25, Gly-40 to Lys-62, Arg-73 to Ala-80, Phe-179 to Arg-184, Pro-190 to His-195, Glu-211 to Ala-219.	AR060: 16, AR052: 8, AR053: 7, AR033: 6, AR104: 6, AR089: 6, AR039: 5, AR061: 5, AR096: 4, AR055: 2 L0776: 8, L0731: 8, S0438: 6, L0752: 6, H0677: 6, S0410: 5, S0440: 5, L0764: 5, L0749: 5, T0049: 4, S0132: 4, L0766: 4, H0648: 4, L0759: 4, L0519: 3, H0684: 3, L0748: 3, L0747: 3, L0757: 3, S0358: 2, S0444: 2, T0006: 2, L0775: 2, L0806: 2, S0152: 2, L0751: 2, L0750: 2, L0758: 2, S0436: 2, H0423: 2, H0624: 1, H0556: 1, H0157: 1, H0295: 1,			

247

					Ile-150 to Ala-157, Ser-159 to Ala-171, Gly-178 to Gly-186, Ala-188 to Ser-204.	22, AR061: 15, AR055: 13 L0766: 10, L0779: 5, L0770: 4, L0803: 4, L0769: 3, L0761: 3, L0747: 3, H0170: 2, H0686: 2, H0617: 2, L0800: 2, L0794: 2, L0806: 2, L0776: 2, L0754: 2, H0685: 1, H0295: 1, H0656: 1, H0402: 1, S0418: 1, H0486: 1, L0471: 1, H0620: 1, H0083: 1, H0688: 1, H0135: 1, H0625: 1, S0422: 1, L0772: 1, L0646: 1, L0643: 1, L0644: 1, L0764: 1, L0768: 1, L0807: 1, L0783: 1, H0522: 1, L0750: 1, L0777: 1, L0755: 1, L0731: 1, S0026: 1 and S0424: 1.		
HOFMT20	1001333	306	127 - 267	2481	Ser-5 to Glu-12.	H0415: 2		
HPAMB04	1001695	307	40 - 621	2482	Lys-106 to Leu-111.	H0641: 38, S0360: 10, L0731: 8, H0542: 7, H0422: 7, H0545: 6, H0521: 6, L0750: 6, H0423: 6, H0617: 5,		

		H0689: 5, H0083: 4, H0494: 4, L0382: 4, H0682: 4, H0435: 4, L0747: 4, L0755: 4, H0159: 3, H0295: 3, H0255: 3, H0039: 3, H0087: 3, L0770: 3, L0768: 3, L0809: 3, S0328: 3, L0601: 3, H0402: 2, H0638: 2, S0132: 2, H0250: 2, H0581: 2, H0544: 2, H0546: 2, H0086: 2, L0769: 2, L0800: 2, L0773: 2, L0648: 2, L0665: 2, H0690: 2, H0659: 2, H0666: 2, H0522: 2, L0751: 2, L0754: 2, L0757: 2, L0596: 2, L0587: 2, L0591: 2, L0362: 2, H0556: 1, H0584: 1, H0685: 1, S0040: 1, H0294: 1, H0657: 1, H0663: 1, H0664: 1, H0125: 1, S0420: 1, S0376: 1, H0489: 1, H0580: 1, S0045: 1, H0069: 1, S0346: 1, H0251: 1, H0530: 1.		
--	--	--	--	--

								H0012: 1, H0620: 1, H0271: 1, H0687: 1, H0181: 1, H0212: 1, S0364: 1, H0388: 1, H0090: 1, H0413: 1, H0560: 1, S0466: 1, S0440: 1, H0646: 1, S0144: 1, L0637: 1, L0764: 1, L0662: 1, L0364: 1, L0794: 1, L0774: 1, L0806: 1, L0658: 1, L0656: 1, L0659: 1, L0383: 1, L0789: 1, L0666: 1, L0664: 1, S0380: 1, H0518: 1, H0134: 1, S0404: 1, H0187: 1, L0749: 1, H0445: 1, S0434: 1 and H0543: 1.			
HODEK48	1001901	308	368 - 682	2483	Thr-2 to Gln-8, Glu-20 to Gly-26.		H0615: 2, L0794: 2 and H0266: 1.				
HVVCB28	1001954	309	328 - 807	2484	Ile-8 to Gly-13, Pro-62 to Phe-68, Gly-95 to Gly-101, Ser-108 to Val-114, Glu-129 to Leu-146.		H0617: 43, H0341: 38, S0046: 37, L0747: 34, S0126: 30, L0507: 29, L0500: 29, S0007: 28, H0087: 28, L0775: 28, L0509: 28, H0594: 27, H0333: 24, L0772: 24, S0132: 23, H0620: 23, L0502: 23, L0768: 21.	19q13.2	107741, 113900, 122720, 122720, 126340, 126391, 160900, 164731, 173850.		

				L0776: 20, L0510: 20, S0134: 19, L0514: 19, H0670: 19, H0402: 17, S0045: 17, S3014: 17, L0503: 16, L0767: 16, L0471: 15, L0493: 15, L0511: 15, L0588: 15, H0040: 14, L0518: 14, H0188: 13, S0144: 13, L0785: 12, S0278: 12, L0809: 12, S0027: 12, S0028: 12, L0748: 12, H0657: 11, H0351: 11, H0549: 11, H0635: 11, L0763: 11, L0774: 11, L0750: 11, S0114: 10, H0255: 10, T0109: 10, L0506: 10, L0764: 10, L0773: 10, L0521: 10, L0783: 10, T0002: 9, S0218: 9, H0009: 9, S0344: 9, L0520: 9, L0515: 9, L0517: 9, L0731: 9, H0295: 8, H0123: 8, H0012: 8, H0634: 8, S0142: 8, L0504: 8, S0206: 8, H0352: 8, H0170: 7, H0069: 7, S0280: 7, H0083: 7, H0424: 7,	207750, 248600, 258501
--	--	--	--	---	------------------------------

252

S0044: 4, S0032: 4, L0754: 4, L0757: 4, H0265: 3, L0760: 3, H0484: 3, H0306: 3, H0125: 3, T0039: 3, H0309: 3, H0178: 3, H0687: 3, H0039: 3, H0063: 3, H0494: 3, H0646: 3, L0806: 3, L0545: 3, L0529: 3, L0368: 3, T0068: 3, H0684: 3, H0659: 3, S0378: 3, H0576: 3, S0390: 3, L0755: 3, L0758: 3, H0595: 3, L0604: 3, L0362: 3, H0136: 3, H0422: 3, H0624: 2, H0395: 2, H0218: 2, H0220: 2, H0685: 2, S0342: 2, H0294: 2, H0381: 2, H0661: 2, H0241: 2, S0420: 2, H0580: 2, H0411: 2, S6022: 2, H0455: 2, H0249: 2, H0574: 2, L0623: 2, T0114: 2, H0156: 2, H0108: 2, S0346: 2, H0421: 2, H0052: 2, H0204: 2, H0596: 2,
--

254

256

257

258

				H0178: 3, H0620: 3, L0163: 3, H0594: 3, H0328: 3, S0364: 3, H0038: 3, H0264: 3, H0056: 3, H0100: 3, T0041: 3, T0042: 3, H0130: 3, S0002: 3, L0374: 3, L0764: 3, L0771: 3, L0776: 3, L0783: 3, H0682: 3, H0435: 3, H0134: 3, H0555: 3, S0390: 3, S3014: 3, L0592: 3, L0599: 3, H0543: 3, H0170: 2, T0002: 2, S0134: 2, H0583: 2, S0116: 2, H0483: 2, H0661: 2, H0550: 2, H0592: 2, H0587: 2, H0333: 2, H0642: 2, H0574: 2, H0632: 2, L0622: 2, T0040: 2, T0109: 2, H0069: 2, H0156: 2, H0599: 2, H0042: 2, H0004: 2, H0530: 2, H0544: 2, H0545: 2, H0150: 2, H0123: 2, H0050: 2, H0024: 2, S0051: 2, H0252: 2, L0142: 2,
--	--	--	--	--

260

	S6022: 1, H0455: 1, H0409: 1, H0601: 1, H0586: 1, H0497: 1, H0643: 1, L0586: 1, T0060: 1, T0114: 1, H0250: 1, S0280: 1, H0002: 1, H0349: 1, H0590: 1, H0274: 1, H0618: 1, H0390: 1, S0182: 1, S0049: 1, H0194: 1, H0251: 1, T0115: 1, H0597: 1, H0546: 1, H0012: 1, T0003: 1, S0050: 1, H0373: 1, S0388: 1, H0239: 1, H0510: 1, T0078: 1, S6028: 1, H0271: 1, H0188: 1, S0336: 1, H0290: 1, S0003: 1, H0615: 1, H0688: 1, H0428: 1, H0622: 1, H0644: 1, H0313: 1, H0181: 1, H0169: 1, H0674: 1, H0124: 1, H0591: 1, H0022: 1, H0561: 1, H0641: 1, H0142: 1, S0422: 1, H0026: 1, L0520: 1, L0640: 1, L0763: 1, L0638: 1,				
--	--	--	--	--	--

262

HOVDG59	1002328	312	1 - 639	2487	Pro-1 to His-7, Glu-61 to Lys-67, Arg-94 to Phe-104, Pro-164 to Trp-169.	H0672: 1. AR052: 20, AR039: 14, AR053: 13, AR096: 11, AR033: 11, AR055: 9, AR089: 9, AR104: 8, AR061: 7, AR060: 6 L0438: 6, L0439: 6, L0776: 5, H0428: 4, L0805: 4, H0687: 3, L0770: 3, H0651: 3, L0789: 2, L0756: 2, L0758: 2, L0361: 2, S0212: 1, S0001: 1, H0351: 1, H0587: 1, H0581: 1, H0052: 1, H0327: 1, H0178: 1, L0769: 1, L0767: 1, L0794: 1, L0807: 1, S0152: 1, H0522: 1, L0731: 1, L0759: 1 and L0608: 1.		
HTJAD78	1002459	313	1236 - 196	2488	Thr-2 to Gln-13, Ser-23 to Ser-28, Ser-36 to Ser-42.	L0748: 29, L0581: 21, H0510: 8, H0255: 5, H0574: 5, H0506: 4, H0331: 3, H0581: 3, H0264: 3, L0803: 3, L0774: 3, L0663: 3, H0555: 3, S0116: 2, H0632: 2, H0087: 2,	144120, 147020, 147110	

264

265

266

									H0519: 1, H0689: 1, H0682: 1, H0658: 1, H0710: 1, H0134: 1, H0187: 1, H0627: 1, S0118: 1, S0028: 1, L0754: 1, L0759: 1, S0260: 1, H0445: 1, S0436: 1, S0011: 1, S0194: 1, S0276: 1 and H0008: 1.			
HPTTW90	1002479	315	3 - 356	2490	Glu-80 to Arg-86.				L0439: 3, H0688: 2, S0142: 2, L0664: 2, H0521: 2, L0751: 2, S0418: 1, S0222: 1, S0250: 1, H0252: 1, H0213: 1, H0617: 1, H0641: 1, S0344: 1, L0371: 1, L0803: 1, L0653: 1, L0527: 1, L0659: 1, H0520: 1, L0780: 1 and H0423: 1.	4p16.3		134934, 134934, 134934, 134934, 134934, 143100, 180072, 180072, 194190, 252800, 252800, 252800, 600965
HSUBG36	1002492	316	58 - 342	2491	Arg-7 to Val-13, Leu-28 to Arg-33, Ser-69 to Gln-76.				L0749: 9, L0766: 5, H0659: 5, H0657: 4, S0022: 4, S0438: 3, S0422: 3, L0521: 3, L0518: 3, L0783: 3, H0144: 3, L0758: 3, H0685: 2, H0656: 2,	1q32		114208, 114208, 119300, 120620, 120620, 120920, 134370,

268

HODFU72	1002527	317	3 - 1199	2492	<p>Leu-14 to Asn-32, Ala-35 to Gly-40, Lys-51 to Ser-56, Ala-68 to Leu-78, Ile-91 to Lys-99, Gly-101 to Ala-124, His-141 to Lys-152, Ser-174 to Asp-181, Pro-203 to Leu-215, Lys-294 to Gly-301.</p>	<p>H0555: 1, S0028: 1, L0755: 1, L0757: 1, S0026: 1, H0136: 1, S0192: 1, H0542: 1, H0543: 1 and H0423: 1, L0777: 9, L0754: 8, H0457: 6, H0251: 5, H0615: 5, L0757: 5, S0360: 4, H0031: 4, L0731: 4, H0445: 4, H0438: 3, L0369: 3, L0662: 3, L0766: 3, L0659: 3, S0126: 3, L0747: 3, H0013: 2, H0644: 2, H0628: 2, L0598: 2, L0770: 2, L0769: 2, L0775: 2, L0805: 2, L0666: 2, S0374: 2, H0682: 2, L0779: 2, L0758: 2, L0759: 2, L0599: 2, L0595: 2, H0543: 2, H0423: 2, H0170: 1, H0556: 1, S0040: 1, H0381: 1, L0481: 1, S0358: 1, S0376: 1, T0008: 1, S0046: 1, H0393: 1, L0717: 1, S0222: 1, H0587: 1, H0333: 1, H0642: 1,</p>		
---------	---------	-----	----------	------	--	---	--	--

		H0632: 1, H0485: 1, H0486: 1, T0109: 1, H0098: 1, H0036: 1, H0390: 1, H0052: 1, H0263: 1, N0006: 1, H0050: 1, T0010: 1, H0083: 1, H0266: 1, H0328: 1, H0169: 1, H0674: 1, H0598: 1, H0561: 1, S0150: 1, S0344: 1, H0538: 1, S0422: 1, UNKWN: 1, H0529: 1, L0371: 1, L0646: 1, L0764: 1, L0649: 1, L0389: 1, L0804: 1, L0655: 1, L0606: 1, L0783: 1, L0809: 1, L0647: 1, L0663: 1, L0664: 1, L0665: 1, H0144: 1, L0352: 1, H0547: 1, H0519: 1, H0684: 1, H0435: 1, H0670: 1, H0672: 1, H0518: 1, S0152: 1, H0522: 1, H0555: 1, S0390: 1, S0037: 1, L0743: 1, L0740: 1, L0751: 1, L0750: 1, L0756: 1, L0755: 1, L0596: 1,			
--	--	--	--	--	--

								L0605: 1, L0590: 1, L0591: 1, L0593: 1, S0026: 1, S0242: 1, S0276: 1 and H0422: 1.			
HCN5F57	1002545	318	20 - 826	2493	Ser-80 to Gln-98.						
HODJU13	1002546	319	2 - 121	2494	Thr-2 to Ser-9, Pro-23 to Glu-34.			H0615: 2			
HODIL25	1002551	320	195 - 1556	2495	Ser-30 to Lys-46, Leu-55 to Gly-67, Ile-80 to Asp-85, Glu-146 to Arg-155, Asn-182 to Arg-192.			H0040: 6, H0013: 3, S0136: 3, L0777: 3, H0542: 3, H0171: 2, H0581: 2, H0328: 2, H0615: 2, L0662: 2, H0144: 2, L0731: 2, H0624: 1, H0170: 1, H0556: 1, S0282: 1, H0661: 1, H0176: 1, H0402: 1, S0354: 1, S0360: 1, H0393: 1, S6014: 1, H0574: 1, H0427: 1, H0575: 1, L0157: 1, S0003: 1, H0553: 1, H0090: 1, H0591: 1, T0067: 1, H0264: 1, H0412: 1, T0041: 1, H0494: 1, H0646: 1, S0002: 1, L0646: 1, L0642: 1, L0645: 1, L0651: 1, L0655: 1, L0659: 1, L0791: 1, L0666: 1,			

									H0520: 1, H0547: 1, H0519: 1, H0689: 1, H0659: 1, H0521: 1, H0696: 1, L0747: 1, L0758: 1, S0192: 1, S0242: 1 and H0422: 1.		
HUVHS56	1002563	321	162 - 791	2496	Gln-34 to Pro-41, Lys-60 to Thr-71, Val-78 to Gln-86, His-139 to Tyr-149, Arg-183 to His-191.				L0803: 4, L0793: 4, L0749: 4, L0438: 3, L0439: 3, S0420: 2, H0485: 2, H0038: 2, H0561: 2, L0804: 2, L0747: 2, L0779: 2, L0591: 2, H0265: 1, H0556: 1, S0418: 1, H0728: 1, H0208: 1, H0619: 1, S0278: 1, H0486: 1, H0244: 1, H0052: 1, S0366: 1, H0598: 1, H0623: 1, L0640: 1, L0364: 1, L0774: 1, L0776: 1, L0807: 1, L0659: 1, L0809: 1, L0791: 1, S0374: 1, H0520: 1, H0547: 1, H0521: 1, H0522: 1, S3014: 1, L0752: 1, L0759: 1, H0445: 1, S0436: 1 and L0599: 1.		
HPMIO18	1002565	322	392 - 823	2497	Gln-29 to Gln-42				H0644: 4, S0036: 1 and		

HLHCI46	1002591	323	114 - 923	2498	Glu-1 to Asp-13, His-55 to Leu-66, Gln-69 to Cys-79, Thr-81 to Asp-90, Gln-132 to Arg-141, Asp-158 to Trp-169, Lys-171 to Asn-180, His-208 to Arg-221, Pro-229 to Glu-237.	H0521: 1, L0591: 15, L0751: 13, L0665: 11, L0754: 9, H0689: 6, L0750: 6, H0362: 3, H0688: 3, H0617: 3, L0774: 3, L0657: 3, H0658: 3, H0575: 2, H0615: 2, H0059: 2, H0690: 2, H0660: 2, S0328: 2, S0330: 2, L0743: 2, L0756: 2, L0755: 2, H0671: 1, H0282: 1, H0024: 1, T0006: 1, H0644: 1, H0647: 1, L0769: 1, L0662: 1, L0803: 1, L0806: 1, L0783: 1, L0809: 1, L0664: 1, H0682: 1, L0748: 1, L0596: 1 and L0599: 1.		
HAOSD18	1002607	324	29 - 1408	2499	Arg-12 to Arg-19, His-62 to Leu-73, Ser-103 to Thr-111, Asn-147 to Val-158, Phe-207 to Trp-213, Lys-243 to Lys-276, Ala-281 to Cys-289, Pro-297 to Pro-302, Glu-315 to Asp-324,			

274

275

276

	L0757: 2, H0444: 2, L0596: 2, L0591: 2, L0361: 2, L0603: 2, S0011: 2, H0668: 2, H0008: 2, H0171: 1, H0222: 1, S0402: 1, T0049: 1, H0650: 1, L0785: 1, S0001: 1, H0669: 1, H0663: 1, H0664: 1, S0420: 1, H0675: 1, S0408: 1, H0580: 1, H0152: 1, H0208: 1, H0393: 1, H0411: 1, H0431: 1, H0438: 1, H0600: 1, H0497: 1, H0491: 1, H0490: 1, T0060: 1, T0109: 1, H0250: 1, H0635: 1, H0599: 1, H0108: 1, H0575: 1, H0004: 1, S0182: 1, S0049: 1, H0052: 1, H0309: 1, H0204: 1, T0115: 1, T0110: 1, H0546: 1, H0545: 1, H0086: 1, H0050: 1, H0350: 1, T0003: 1, H0578: 1, H0015: 1, H0373: 1, S0051: 1, H0078: 1, S0336: 1					
--	---	--	--	--	--	--

278

							H0521: 1, S0118: 1, L0752: 1, L0753: 1, L0759: 1, H0595: 1, L0587: 1, L0589: 1, L0605: 1, L0599: 1, S0026: 1, H0653: 1, H0217: 1, S0194: 1, S0424: 1, S3018: 1, S0384: 1, S0446: 1 and H0293: 1.		
HSCLR05	1002807	327	3 - 242	2502	Lys-1 to Asn-10, Phe-40 to Gly-55, Asn-61 to Arg-66.		L0748: 3, H0486: 1, H0428: 1, H0034: 1, H0690: 1, H0435: 1, H0658: 1, H0653: 1 and L0465: 1.		
HVVAO74	1002811	328	37 - 831	2503	Pro-107 to Gly-118, Gly-128 to Ser-140, Asp-148 to Glu-166, Ala-173 to Ala-186, Arg-196 to Ala-210, Ile-219 to Trp-228, Asn-238 to Met- 251.		L0777: 17, L0766: 11, S0360: 10, L0748: 10, H0620: 8, H0124: 8, L0770: 8, H0295: 7, S0408: 7, S0046: 6, L0775: 6, L0659: 6, L0744: 6, L0595: 6, S0278: 5, S0440: 5, L0769: 5, L0655: 5, L0657: 5, L0666: 5, L0731: 5, H0556: 4, H0484: 4, S0358: 4, H0580: 4, S0222: 4, H0559: 4, H0052: 4, H0545: 4, H0673: 4,	12q23-q24	113100, 124200, 147440, 158590, 160781, 163950, 163950, 235800, 251170, 276710, 600175, 601517

280

281

	H0318: 1, S0474: 1, H0196: 1, H0251: 1, H0085: 1, H0204: 1, H0596: 1, H0597: 1, H0327: 1, H0546: 1, H0086: 1, H0081: 1, H0050: 1, H0373: 1, S0051: 1, T0010: 1, H0375: 1, S6028: 1, H0271: 1, S0334: 1, H0284: 1, S0250: 1, S0003: 1, S0214: 1, H0328: 1, H0213: 1, H0628: 1, H0169: 1, H0674: 1, S0366: 1, H0316: 1, H0598: 1, H0163: 1, H0591: 1, H0038: 1, H0056: 1, H0561: 1, S0464: 1, S0466: 1, S0150: 1, S0142: 1, S0426: 1, H0529: 1, L0772: 1, L0373: 1, L0372: 1, L0771: 1, L0363: 1, L0768: 1, L0649: 1, L0804: 1, L0650: 1, L0375: 1, L0784: 1, L0658: 1, L0635: 1, L0542: 1, L0526: 1, L0518: 1, L0519: 1,	
--	--	--

HVVB181	1003126	329	199 - 843	2504	Asp-45 to Pro-56, Thr-86 to Ser-91, Pro-127 to Arg-133, Asp-201 to Gln-215.	L0529: 1, L0647: 1, S0428: 1, H0698: 1, H0702: 1, L0565: 1, H0520: 1, H0690: 1, H0682: 1, H0684: 1, H0659: 1, H0670: 1, S0328: 1, H0539: 1, S0378: 1, S0380: 1, H0709: 1, S0044: 1, S0404: 1, H0436: 1, H0576: 1, S0037: 1, L0741: 1, L0755: 1, S0434: 1, L0597: 1, L0589: 1, L0608: 1, L0366: 1, S0026: 1, S0194: 1, S0276: 1, H0423: 1 and H0352: 1, L0777: 14, L0748: 11, L0747: 7, L0752: 7, H0295: 6, L0769: 6, L0749: 4, L0755: 4, H0341: 3, H0580: 3, H0581: 3, H0529: 3, L0770: 3, L0751: 3, L0750: 3, L0756: 3, L0605: 3, L0601: 3, L0615: 2, S0116: 2, H0402: 2, S0132: 2, H0575: 2, H0253: 2, H0309: 2, H0081: 2,	19q13.1- q13.2	107741, 113900, 122720, 122720, 126340, 126391, 160900, 164731, 172400, 172400, 173850, 180901, 180901,
---------	---------	-----	-----------	------	--	---	-------------------	---

284

						L0376: 1, L0783: 1, L0532: 1, L0666: 1, L0665: 1, H0689: 1, H0659: 1, H0658: 1, H0670: 1, H0660: 1, H0648: 1, H0672: 1, S0330: 1, H0521: 1, S0044: 1, H0134: 1, S0027: 1, L0740: 1, L0731: 1, H0445: 1, S0192: 1 and H0542: 1.			
HVVBK18	1003155	330	185 - 925	2505	Lys-75 to Lys-80, Leu-138 to Tyr-144, Tyr-153 to Pro-159.	L0740: 11, L0751: 11, L0731: 7, L0758: 7, H0659: 6, H0672: 6, L0748: 6, L0759: 6, H0251: 5, H0441: 4, L0766: 4, L0806: 4, S0040: 3, H0551: 3, H0412: 3, S0422: 3, L0774: 3, L0775: 3, H0648: 3, H0521: 3, L0754: 3, L0747: 3, L0752: 3, L0755: 3, S0026: 3, H0624: 2, H0341: 2, S0298: 2, S0358: 2, S0360: 2, S0046: 2, H0333: 2, H0318: 2, H0009: 2, H0024: 2, H0083: 2, S0214: 2, H0617: 2.	ip34.2	120550, 120570, 120575, 121800, 130500, 133200, 138140, 171760, 171760, 255800	

286

								L0520: 1, L0769: 1, L0796: 1, L0639: 1, L0761: 1, L0646: 1, L0521: 1, L0533: 1, L0376: 1, L0607: 1, L0657: 1, L0659: 1, L0635: 1, L0382: 1, L0664: 1, S0374: 1, H0684: 1, H0670: 1, S0328: 1, S0146: 1, S3012: 1, S3014: 1, S0028: 1, S0032: 1, L0743: 1, L0750: 1, L0779: 1, L0757: 1, S0436: 1, L0596: 1, L0592: 1, L0593: 1, S0196: 1, H0542: 1 and H0422: 1.			
HOFMS19	1003222	331	12 - 317	2506			H0415: 2	21q11.2- q21.1	159595		
HSCLM55	1003224	332	1 - 768	2507	Phe-2 to Asp-14, Leu-35 to Ile-42, Leu-63 to Lys-69, Thr-79 to Glu-84, Ile-137 to Gln-149, Thr-195 to Asp-200, Lys-216 to Glu-222, Asn-228 to Asn- 233.						
HETJU23	1003706	333	860 - 1477	2508			AR055: 9, AR061: 8,				

							AR033: 6, AR060: 6, AR052: 5, AR089: 4, AR053: 3, AR096: 2, AR039: 2, AR104: 1 L0749: 4, L0794: 3, H0658: 3, H0046: 2, L0803: 2, L0666: 2, L0663: 2, L0777: 2, H0556: 1, H0351: 1, H0253: 1, H0014: 1, T0023: 1, H0038: 1, H0477: 1, H0412: 1, L0370: 1, L0763: 1, L0769: 1, L0639: 1, L0800: 1, L0768: 1, L0649: 1, L0804: 1, L0776: 1, L0367: 1, L0438: 1, H0435: 1, H0670: 1, H0666: 1, H0522: 1 and L0759: 1.				
HNOKB73	1004480	334	3 - 515	2509			S0192: 130, L0659: 16, L0666: 10, S0360: 7, L0771: 6, S0194: 5, L0662: 4, S0196: 4, L0665: 3, H0251: 2, H0252: 2, L0598: 2, L0638: 2, L0637: 2, L0649: 2, L0783: 2, H0684: 2, H0170: 1, H0687: 1, S0250: 1,				

								H0428: 1, H0048: 1, H0591: 1, L0774: 1, L0806: 1, L0809: 1, L0790: 1, L0664: 1, H0690: 1, L0751: 1, L0756: 1, L0758: 1, S0436: 1 and S0242: 1.			
HODFB06	1004583	335	392 - 550	2510				Phe-11 to Gly-16, Gln-44 to Ile-53.			H0615: 3 and L0740: 1.
HODJA76	1004619	336	198 - 302	2511				Ser-1 to Cys-12, Gly-16 to Val-29.			H0615: 1
HODJY60	1004625	337	111 - 683	2512				Arg-1 to Gly-8, Thr-82 to Thr-95, Ser-104 to Ile-110, Asn-136 to Glu-141.			L0803: 11, L0748: 11, L0777: 10, L0754: 8, L0759: 6, S0126: 5, S0358: 3, L0804: 3, L0439: 3, L0740: 3, L0747: 3, L0731: 3, L0758: 3, L0415: 2, S0360: 2, H0437: 2, H0457: 2, S0003: 2, H0615: 2, L0774: 2, L0775: 2, L0375: 2, L0666: 2, S0328: 2, L0750: 2, L0779: 2, L0752: 2, L0755: 2, L0757: 2, H0341: 1, H0637: 1, H0580: 1, H0592: 1, L0021: 1, T0110: 1, H0620: 1, H0266: 1, S0314: 1,

								H0039: 1, H0031: 1, H0553: 1, L0055: 1, T0067: 1, H0412: 1, H0494: 1, H0561: 1, L0763: 1, L0772: 1, L0800: 1, L0764: 1, L0771: 1, L0766: 1, L0382: 1, L0809: 1, L0790: 1, L0532: 1, L0665: 1, H0144: 1, H0520: 1, H0682: 1, H0658: 1, H0648: 1, H0672: 1, S0044: 1, H0436: 1, L0756: 1, L0608: 1, S0026: 1, H0543: 1 and S0424: 1.			
HODEF10	1004627	338	1 - 231	2513	His-7 to Gly-17, Phe-24 to Trp-40.			H0615: 2			
HODFB03	1004631	339	1 - 711	2514	Gln-24 to Leu-29, His-38 to Asn-50, Gly-117 to Tyr-128, Ser-135 to Pro-147.			S0354: 1, H0083: 1, H0615: 1 and H0665: 1.	6p12-pl1.1	180297, 230450, 263200, 601690	
HPMLN08	1004632	340	518 - 1294	2515				L0752: 14, L0777: 12, L0754: 11, L0731: 11, H0692: 10, L0758: 8, L0766: 6, L0759: 6, S0358: 5, L0809: 5, S0222: 4, S0003: 4, H0328: 4, L0769: 4, L0771: 4, L0803: 4,			

	L0740: 4, S0194: 4, L0005: 3, S0360: 3, H0068: 3, H0494: 3, L0774: 3, L0775: 3, L0776: 3, H0521: 3, L0747: 3, L0749: 3, L0757: 3, H0170: 2, H0713: 2, S0444: 2, H0427: 2, H0156: 2, S0010: 2, L0157: 2, H0687: 2, T0006: 2, H0628: 2, H0169: 2, H0598: 2, L0662: 2, L0768: 2, L0805: 2, L0666: 2, L0438: 2, H0547: 2, H0670: 2, H0648: 2, H0539: 2, L0748: 2, L0589: 2, L0599: 2, H0556: 1, T0002: 1, L0002: 1, H0341: 1, H0720: 1, S0400: 1, H0483: 1, H0402: 1, H0638: 1, S0442: 1, S0376: 1, H0733: 1, S0132: 1, H0645: 1, L0717: 1, H0431: 1, H0331: 1, H0486: 1, H0013: 1, H0036: 1, H0590: 1, H0052: 1, H0309: 1.				
--	--	--	--	--	--

292

							L0608: 1, L0362: 1, H0668: 1, S0026: 1, H0653: 1 and H0423: 1.			
HODEH08	1004633	341	1 - 378	2516			H0032: 5, H0620: 4, H0599: 3, H0024: 3, H0615: 3, H0556: 2, H0141: 2, H0585: 2, S0420: 2, H0014: 2, H0212: 2, L0748: 2, L0740: 2, H0624: 1, H0170: 1, H0149: 1, H0484: 1, H0580: 1, H0393: 1, H0370: 1, H0592: 1, H0318: 1, S0049: 1, H0052: 1, H0530: 1, H0081: 1, H0012: 1, H0023: 1, H0286: 1, H0039: 1, H0135: 1, H0272: 1, H0412: 1, H0059: 1, S0440: 1, H0132: 1, S0002: 1, L0602: 1, L0746: 1, H0445: 1 and H0506: 1.			
HEGBF25	1004635	342	57 - 773	2517		Ala-1 to Gly-23, Gly-26 to Leu-32, Leu-53 to Leu-65, Gln-145 to Thr-151.	AR096: 1, AR089: 1, AR104: 0, AR055: 0, AR060: 0, AR061: 0 L0761: 3, L0439: 3, L0747: 3, L0766: 2, H0659: 2, L0779: 2.			

							L0777: 2, H0170: 1, S0360: 1, H0550: 1, H0023: 1, H0018: 1, H0641: 1, L0763: 1, L0769: 1, L0764: 1, L0803: 1, L0774: 1, L0655: 1, L0666: 1, H0648: 1 and H0436: 1.			
HODJB51	1004643	343	201 - 272	2518	Ser-1 to Asp-19.		H0328: 1 and H0615: 1.			
HODEC38	1004648	344	2 - 208	2519			L0764: 9, L0747: 6, L0766: 5, L0070: 5, L0748: 4, L0662: 3, L0749: 3, L0758: 3, L0759: 3, L0601: 3, H0574: 2, H0014: 2, H0615: 2, L0529: 2, L0666: 2, L0596: 2, H0265: 1, H0556: 1, H0583: 1, S0356: 1, S0360: 1, S0222: 1, H0486: 1, L0021: 1, H0581: 1, H0309: 1, H0545: 1, H0172: 1, H0188: 1, S0214: 1, H0252: 1, H0328: 1, H0674: 1, L0456: 1, H0625: 1, H0561: 1, S0426: 1, L0763: 1, L0769: 1, L0646: 1,			

295

HTHDV01	1004950	347	3 - 1292	2522	His-1 to Arg-20, Ala-30 to Ala-38, Ala-58 to Ser-69, Ser-138 to Pro-143, Leu-182 to Lys-198, Cys-204 to Thr-212, Ala-217 to Leu-229, Leu-237 to Lys-242, Asn-295 to Ser-302, Leu-314 to Phe-319, Ser-327 to Ser-338, Arg-409 to Ser-423.	L0387: 1, L0381: 1, L0775: 1, L0527: 1, L0664: 1, L0665: 1, S0216: 1, S0374: 1, L0565: 1, H0684: 1, H0435: 1, H0659: 1, H0648: 1, H0672: 1, H0710: 1, H0555: 1, L0748: 1, L0754: 1, L0749: 1, L0756: 1, H0595: 1 and H0543: 1.	14q24.3	104311, 109150, 182600, 245200, 601208
---------	---------	-----	----------	------	---	--	---------	--

298

299

300

									215700, 223360, 268900, 601850
HODIY29	1005236	349	2115 - 1081	2524	Lys-1 to Phe-58, Pro-62 to Ser-105, Arg-118 to Asp-154, Pro-181 to Pro-187, Ala-215 to Asp-221, Pro-228 to Phe-240, Pro-264 to Ser-269, Ser-281 to Asp-291, Glu-301 to Phe-314.		L0748: 11, H0591: 2, L0779: 2, L0758: 2, H0624: 1, S0342: 1, S0045: 1, H0351: 1, H0427: 1, S0010: 1, H0052: 1, H0251: 1, N0006: 1, L0471: 1, H0266: 1, H0615: 1, H0622: 1, H0031: 1, H0090: 1, H0038: 1, L0769: 1, L0761: 1, L0766: 1, L0774: 1, L0657: 1, H0593: 1, H0521: 1, H0555: 1, L0744: 1, L0747: 1, L0750: 1 and L0777: 1.	21q22.1- q22.2	147450, 176261, 253270, 601399
HOELP29	1005359	350	3 - 1013	2525	Lys-5 to Leu-10, Ser-20 to Glu-30, Leu-32 to Thr-37.		L0755: 11, L0766: 4, L0747: 4, L0764: 2, L0663: 2, H0556: 1, H0686: 1, S0444: 1, S0408: 1, H0580: 1, H0722: 1, H0290: 1, L0483: 1, H0165: 1, H0494: 1, H0132: 1, S0150: 1, S0208: 1, L0772: 1, L0768: 1,	1p32	120950, 120960, 138140, 178300, 187040, 600101, 600650, 600650, 600722, 600722

								L0784: 1, L0805: 1, H0547: 1, S0126: 1, H0659: 1, H0660: 1, H0627: 1, L0749: 1, L0779: 1, L0731: 1, L0757: 1 and H0668: 1.			
HWLFG04	1005384	351	2 - 1015	2526				Lys-9 to Thr-17, Lys-41 to Asn-55, Leu-57 to Asn-65, Val-67 to Asn-79, Ile-122 to Cys-132, Leu-135 to Ala-147, Gln-175 to Ala-197, Pro-227 to Thr-251, Pro-253 to Gly-264, Pro-288 to Gln-296, Gln-312 to Val-321.	7p15	138079, 138079, 139191, 142959, 153880, 180104, 600994, 601649	
HYAAC49	1005511	352	2 - 781	2527				AR089: 5, AR096: 5, AR053: 4, AR060: 3, AR039: 3, AR033: 3, AR055: 2, AR104: 2, AR061: 1 H0583: 1 and H0036: 1.			
HCOOA71	1005843	353	68 - 205	2528				Thr-34 to Ser-46.			

HOUFB45	1005974	354	879 - 478	2529	Ser-1 to Ser-7, Gly-21 to Arg-37.	L0740: 3, H0581: 2, H0546: 2, H0024: 2, L0521: 2, L0375: 2, H0670: 2, L0748: 2, L0758: 2, L0759: 2, H0171: 1, S0360: 1, H0351: 1, L0622: 1, H0052: 1, H0424: 1, H0617: 1, H0087: 1, H0059: 1, H0494: 1, H0646: 1, L0369: 1, L0763: 1, L0766: 1, L0776: 1, L0657: 1, L0789: 1, L0666: 1, L0663: 1, L0565: 1, H0658: 1, L0439: 1, L0750: 1, L0753: 1 and L0757: 1.	22q11.23	123620, 600850
						L0665: 4, L0779: 3, L0646: 2, L0800: 2, L0650: 2, L0659: 2, S0040: 1, S0442: 1, S0045: 1, H0619: 1, H0052: 1, H0024: 1, S0051: 1, H0604: 1, H0030: 1, H0135: 1, L0639: 1, L0761: 1, L0372: 1, L0641: 1, L0771: 1, L0766: 1, L0803: 1, L0776: 1.		

304

								H0328: 1, H0617: 1, H0040: 1, H0412: 1, H0494: 1, H0641: 1, L0761: 1, L0645: 1, L0773: 1, L0521: 1, L0375: 1, L0651: 1, L0805: 1, L0776: 1, L0526: 1, L0783: 1, L0809: 1, L0789: 1, L0666: 1, L0664: 1, H0701: 1, L0352: 1, H0547: 1, H0658: 1, H0670: 1, H0648: 1, H0651: 1, H0436: 1, L0740: 1, L0754: 1, L0752: 1, L0757: 1, L0591: 1, L0592: 1 and H0293: 1.		
HMCDB21	1006055	356	411 - 509	2531	Asn-1 to Arg-13.			L0794: 2, L0776: 2, L0745: 2, L0758: 2, S0260: 2, S0142: 1, L0500: 1 and H0648: 1.		
HSDEY08	1006142	357	594 - 1136	2532	Leu-25 to Phe-35, Lys-48 to Asp-54, Arg-62 to Phe-72, Tyr-92 to Leu-99.			L0534: 10, L0747: 10, L0769: 8, L0751: 7, L0592: 5, H0545: 4, L0770: 4, L0761: 4, L0438: 4, H0599: 3, T0010: 3, H0553: 3, L0646: 3, H0547: 3, S0028: 3, H0101: 2,		

306

HOOJT92	1006215	358	41 - 172	2533	Ser-9 to Glu-18, Asp-22 to Asp-30.	L0776: 1, L0636: 1, L0809: 1, L0791: 1, L4501: 1, L0666: 1, L0663: 1, L0665: 1, S0428: 1, H0693: 1, H0520: 1, H0519: 1, H0690: 1, H0684: 1, H0670: 1, H0660: 1, H0648: 1, H0521: 1, H0134: 1, H0436: 1, L0612: 1, S0037: 1, L0742: 1, L0743: 1, L0744: 1, L0748: 1, L0439: 1, L0777: 1, L0780: 1, L0757: 1, L0759: 1, S0031: 1, S0434: 1 and S0192: 1. L0748: 20, L0731: 10, L0776: 7, L0766: 6, L0754: 6, L0747: 6, L0752: 6, L0740: 5, L0755: 5, L0759: 5, H0550: 4, L0769: 4, L0438: 4, H0545: 3, H0051: 3, H0135: 3, L0662: 3, L0809: 3, L0666: 3, H0624: 2, H0685: 2, L0005: 2, H0645: 2, H0013: 2, S0346: 2, H0318: 2.		
---------	---------	-----	----------	------	---------------------------------------	---	--	--

308

309

HPCTS21	1006317	360	117 - 1754	2535	Arg-8 to Ser-35, Leu-40 to Cys-77.	S0330: 1, L0755: 1, L0759: 1, H0707: 1, L0608: 1, H0543: 1 and H0423: 1. L0766: 6, L0754: 6, L0779: 4, H0486: 3, L0665: 3, S0440: 2, L0756: 2, L0731: 2, L0758: 2, H0624: 1, H0717: 1, H0738: 1, H0125: 1, S0376: 1, S0360: 1, H0581: 1, L0157: 1, L0471: 1, S0250: 1, S0003: 1, H0316: 1, S0422: 1, L0769: 1, L0387: 1, L0803: 1, L0805: 1, L0776: 1, L0606: 1, L0659: 1, L0518: 1, L0793: 1, L0664: 1, H0689: 1, H0659: 1, H0658: 1, H0672: 1, S0328: 1, S0136: 1, H0134: 1, H0436: 1, H0732: 1, L0751: 1, L0777: 1, L0755: 1, L0759: 1, S0436: 1, H0422: 1 and S0412: 1.			
HFATL31.	1006399	361	2 - 508	2536	Leu-17 to Arg-37, Pro-50 to Ser-77,	H0052: 2, H0620: 2, H0729: 1, S0300: 1,			

					Arg-85 to Gln-91, Glu-148 to Glu-153.		H0462: 1, H0550: 1, H0441: 1, H0333: 1, H0618: 1, S0010: 1, H0309: 1, H0032: 1, H0673: 1, H0124: 1, S0366: 1, S0036: 1, L0637: 1, S3014: 1, L0742: 1, L0743: 1, L0740: 1, L0750: 1, L0753: 1 and L0758: 1.		
HE2JE77	1006445	362	2 - 331	2537	Gly-67 to Leu-76, Cys-83 to Arg-89, Glu-96 to Asn-102.		L0521: 2, H0624: 1, H0539: 1 and H0555: 1.		
HCBNX87	1006470	363	948 - 529	2538	Gly-16 to Asn-31, Ala-36 to Ser-41, Glu-93 to Pro-100, Lys-135 to Gln-140.		H0693: 44, L0604: 5, S0366: 4, L0805: 4, H0637: 3, L0766: 3, H0672: 3, H0549: 2, H0271: 2, L0777: 2, H0661: 1, H0580: 1, H0173: 1, H0620: 1, H0428: 1, S0364: 1, L0641: 1, L0644: 1, L0655: 1, L0809: 1, L0791: 1, L0666: 1, L0663: 1, T0068: 1, H0576: 1, L0780: 1, L0731: 1, L0584: 1 and H0543: 1.		
HNTDJ68	1006483	364	3 - 653	2539	Val-9 to Ser-15, Phe-34 to Tyr-41,		AR052: 6, AR053: 5, AR055: 3, AR089: 3,		

					Glu-59 to Glu-75, Leu-94 to Asn-99, Asp-142 to Cys-152, Lys-166 to Leu-172, Lys-188 to Asn-194, Pro-212 to Ala-217.	AR033: 3, AR096: 3, AR061: 2, AR039: 2, AR060: 2, AR104: 2, H0615: 3, H0393: 1, H0441: 1, T0109: 1, H0318: 1, H0570: 1, H0566: 1, H0551: 1, H0625: 1, L0761: 1, L0766: 1, L0803: 1, L0784: 1, H0144: 1, H0539: 1, H0696: 1, L0744: 1, L0740: 1 and L0777: 1.			
HTRAA05	1006512	365	19 - 327	2540	Pro-11 to Phe-16, Ala-59 to Asp-66.	T0002: 1, H0164: 1 and L0761: 1.			
HMTAL96	1006635	366	1767 - 1321	2541	Ala-9 to Leu-20, Arg-70 to Thr-75, Pro-129 to Gly-139.	L0747: 6, L0754: 4, L0752: 4, S0280: 3, H0615: 3, L0766: 3, L0803: 3, L0805: 3, L0809: 3, L0740: 3, L0750: 3, L0731: 3, H0050: 2, L0471: 2, H0628: 2, H0032: 2, S0426: 2, H0648: 2, S0027: 2, L0779: 2, L0757: 2, L0759: 2, L0485: 2, H0656: 1, S0029: 1, S0356: 1, S0358: 1, S0376: 1, S0408: 1, H0580: 1,			

313

HISEQ81	1006943	368	298 - 2	2543	Glu-8 to Tyr-18, Asn-29 to Lys-35, Lys-62 to Ile-67, His-88 to Pro-99.	H0539: 2		
HODFH02	1006953	369	334 - 393	2544		H0615: 3		
HOCPP18	1007230	370	290 - 571	2545	Pro-11 to Phe-19, Phe-41 to Ser-54.	L0748: 3, L0471: 2, L0766: 2, L0752: 2, S0358: 1, H0357: 1, H0486: 1, H0270: 1, H0575: 1, S0182: 1, S0049: 1, T0067: 1, H0412: 1, H0560: 1, S0144: 1, S0326: 1, H0538: 1, S0422: 1, S0426: 1, L0764: 1, H0660: 1, H0521: 1, S0432: 1, L0740: 1, L0751: 1, L0754: 1, L0745: 1, L0747: 1, L0777: 1, L0731: 1, H0445: 1, L0608: 1 and H0667: 1.	14q21	182600, 232700, 602086, 602616
HODFP91	1007941	371	3 - 1016	2546	Glu-10 to Ser-19, His-41 to Lys-50, Glu-80 to Leu-86, Ser-142 to Leu-147, Lys-153 to Lys-161, Tyr-167 to Leu-175, Ser-177 to Asn-188, Gln-199 to Arg-228,	L0777: 4, L0517: 3, L0740: 3, L0599: 3, S0354: 2, H0615: 2, L0521: 2, L0663: 2, L0779: 2, L0591: 2, T0002: 1, H0013: 1, H0427: 1, H0553: 1, H0038: 1, L0520: 1,		

					Gln-257 to Glu-262, Asp-274 to Ser-279.	L0769: 1, L0638: 1, L0518: 1, L0809: 1, H0547: 1, L0439: 1, L0747: 1 and H0444: 1.			
H6EDU06	1007976	372	18 - 449	2547	Pro-6 to Leu-11, Glu-90 to Asn-95, Val-102 to Val-107, Ala-120 to Glu-126, Ala-132 to Thr-144.	H0686: 1, H0559: 1 and S0028: 1.			
HPCRD26	1008013	373	81 - 1334	2548	Gly-8 to Asp-16, Gly-71 to Pro-77, Met-98 to Tyr-105, Lys-129 to Arg-146, Gln-177 to Val-186, Gln-192 to Trp-216, Pro-223 to Asp-237, Ala-251 to Ser-258, Arg-287 to Arg-292, Met-323 to Gly-331.	AR053: 1, AR104: 1, AR061: 1, AR033: 1, AR060: 0, AR096: 0, AR039: 0, AR089: 0, AR052: 0, AR055: 0			
HSIEH63	1008027	374	3 - 554	2549	His-1 to Pro-7, Lys-43 to Asp-59, Thr-122 to Tyr-133, Gly-152 to Thr-160.	AR039: 9, AR089: 4, AR060: 4, AR055: 4, AR061: 3, AR033: 3, AR104: 3, AR053: 3, AR096: 1 S0354: 2, S0360: 1, H0036: 1, H0596: 1 and S0374: 1.			
HPASD51	1008071	375	3 - 752	2550	Glu-26 to Gly-31, Gly-33 to Trp-40, Ala-169 to Glu-175,	AR052: 51, AR061: 46, AR033: 35, AR053: 28, AR104: 26, AR055:			

316

			S0420: 1, S0358: 1, S0360: 1, S0410: 1, H0637: 1, H0208: 1, S0045: 1, S0046: 1, H0393: 1, S0278: 1, H0369: 1, H0441: 1, H0357: 1, H0613: 1, T0039: 1, H0013: 1, H0427: 1, H0575: 1, S0010: 1, S0346: 1, H0209: 1, H0123: 1, H0024: 1, S0051: 1, T0010: 1, H0061: 1, H0266: 1, H0553: 1, H0598: 1, S0036: 1, H0038: 1, H0551: 1, H0264: 1, H0059: 1, L0351: 1, T0041: 1, L0475: 1, L0762: 1, L0631: 1, L0638: 1, L0643: 1, L0766: 1, L0804: 1, L0775: 1, L0375: 1, L0805: 1, L0791: 1, L0663: 1, S0126: 1, H0670: 1, H0660: 1, H0672: 1, H0521: 1, H0522: 1, H0696: 1, H0704: 1, S0044: 1, L0756: 1, L0757: 1, L0758: 1,		
--	--	--	--	--	--

318

319

										601744, 601975
HODEC78	1008299	379	1 - 1209	2554	Arg-1 to Cys-8, Ala-11 to Thr-22, Pro-87 to Leu-99, Lys-120 to Gln-144, Leu-179 to Lys-200, Glu-212 to Lys-221, Tyr-280 to Arg-287, Lys-292 to Gly-299, Val-314 to Ser-320, Pro-322 to Pro-340.		Arg-1 to Cys-8, Ala-11 to Thr-22, Pro-87 to Leu-99, Lys-120 to Gln-144, Leu-179 to Lys-200, Glu-212 to Lys-221, Tyr-280 to Arg-287, Lys-292 to Gly-299, Val-314 to Ser-320, Pro-322 to Pro-340.	H0615: 2, L0766: 2, L0755: 2, L0471: 1, H0356: 1, T0023: 1, L0761: 1, L0794: 1, L0787: 1, L0789: 1, H0519: 1, L0745: 1, L0746: 1, L0591: 1 and L0593: 1.	12p11.2- p11.1	112410, 135700, 168470, 200990
HODEF29	1008304	380	26 - 169	2555	His-8 to Gly-18.		His-8 to Gly-18.	H0615: 1		
HODFB71	1008307	381	369 - 671	2556	Lys-54 to Arg-59, Arg-66 to Arg-71.		Lys-54 to Arg-59, Arg-66 to Arg-71.	L0805: 2, S0134: 1, H0486: 1, H0251: 1, H0235: 1, S0022: 1, H0615: 1, L0667: 1, L0776: 1, L0789: 1, L0758: 1 and H0423: 1.		
HODEF78	1008314	382	3 - 218	2557	Thr-4 to Ser-11, Pro-25 to Ala-31, Thr-38 to His-44.		Thr-4 to Ser-11, Pro-25 to Ala-31, Thr-38 to His-44.	H0615: 1		
HODEL83	1008324	383	3 - 416	2558	Ser-2 to Thr-13, Ile-16 to Ser-26, Pro-28 to Gln-36, Gln-41 to Pro-47, Pro-106 to Asp-111, Trp-127 to Thr-132.		Ser-2 to Thr-13, Ile-16 to Ser-26, Pro-28 to Gln-36, Gln-41 to Pro-47, Pro-106 to Asp-111, Trp-127 to Thr-132.	H0615: 3		
HHPHSH76	1008325	384	244 - 1206	2559	Ser-2 to Ser-7, Leu-51 to Arg-56.		Ser-2 to Ser-7, Leu-51 to Arg-56.	L0776: 9, L0769: 4, L0789: 4, L0773: 3,		

						Lys-142 to Ser-149, His-178 to Ser-187, Tyr-261 to Gly-267, Arg-272 to Asp-292.	L0774: 3, L0750: 3, L0761: 2, L0771: 2, L0803: 2, L0807: 2, L0565: 2, L0745: 2, S0376: 1, H0549: 1, H0453: 1, H0587: 1, S0010: 1, S0324: 1, H0201: 1, H0687: 1, H0428: 1, H0538: 1, L0763: 1, L0770: 1, L0800: 1, L0643: 1, L0764: 1, L0794: 1, L0766: 1, L0775: 1, L0806: 1, S0328: 1, H0521: 1, L0780: 1, L0758: 1, L0759: 1, L0605: 1 and S0462: 1.			
HBGBE52	1008326	385	782 - 663	2560		Gly-1 to Glu-26, Val-28 to Leu-35.	H0181: 2, L0599: 2, H0014: 1, L0365: 1, L0665: 1, S0052: 1, S0216: 1, H0684: 1, S0152: 1, S0188: 1, H0345: 1 and L0366: 1.			
HBQAB30	1008327	386	3 - 737	2561		Asn-40 to Arg-68, Ser-86 to Ala-92, Ile-129 to Lys-145, Glu-162 to Ala-175, Glu-181 to Thr-204, Ser-206 to Lys-214, Leu-222 to Thr-231.	H0551: 2, S0354: 1, H0229: 1, S0049: 1, H0135: 1, H0529: 1 and S0028: 1.			

HLHCB31	1008332	387	1 - 558	2562	Asn-7 to Lys-19.	L0750: 4, L0777: 3, L0758: 3, S0354: 2, S0360: 2, H0039: 2, H0622: 2, H0617: 2, L0666: 2, H0520: 2, L0756: 2, L0759: 2, S0358: 1, H0549: 1, H0253: 1, H0009: 1, L0471: 1, H0620: 1, H0024: 1, H0083: 1, H0688: 1, L0142: 1, H0135: 1, H0038: 1, H0100: 1, H0646: 1, L0763: 1, L0761: 1, L0764: 1, L0662: 1, L0767: 1, L0794: 1, L0653: 1, L0659: 1, L0809: 1, L0665: 1, H0144: 1, H0547: 1, H0672: 1, L0741: 1, L0743: 1, L0744: 1, L0753: 1 and S0276: 1.	16q13- 16q21	114835, 118470, 132700, 172490, 209900, 600968
HPFDV51	1008335	388	22 - 216	2563	Thr-5 to His-10, Pro-28 to Thr-40, Lys-46 to His-54.	H0670: 4, S0007: 2, H0014: 2, H0616: 2, L0005: 1, H0574: 1, H0632: 1, H0156: 1, H0169: 1, L0769: 1, L0805: 1, L0647: 1, H0648: 1, L0779: 1 and L0758: 1.		

HTEDY04	1008336	389	2 - 832	2564	Arg-2 to Gly-9, Arg-38 to Lys-46, Ser-53 to Ser-73, Asp-79 to Ala-84, Leu-129 to Gln-136, Glu-202 to Arg-210, Glu-216 to Ala-231, Glu-234 to Glu-254, Lys-259 to Leu-265.	L0803: 8, L0758: 8, L0809: 6, L0748: 6, H0038: 5, L0439: 5, H0616: 4, H0670: 4, L0756: 4, L0731: 4, L0794: 3, L0750: 3, L0770: 2, L0805: 2, L0776: 2, L0602: 2, L0779: 2, S0276: 2, S0282: 1, S0410: 1, H0369: 1, H0549: 1, H0618: 1, H0252: 1, H0615: 1, H0424: 1, H0213: 1, H0032: 1, H0212: 1, H0068: 1, T0067: 1, S0438: 1, L0769: 1, L0638: 1, L0804: 1, L0775: 1, L0806: 1, L0527: 1, L0782: 1, L0788: 1, L0789: 1, L0666: 1, L0664: 1, L0665: 1, H0658: 1, H0672: 1, S3012: 1, L0751: 1, L0745: 1, L0777: 1, L0780: 1, L0759: 1 and L0581: 1.	1p35.1	118210, 120550, 120570, 120575, 121800, 130500, 133200, 171760, 171760, 185470, 230350, 255800, 602771	
HODEG13	1008337	390	2 - 166	2565	Gln-2 to His-10, Lys-21 to Gln-33.	H0615: 3			
HHPFK16	1008345	391	109 - 435	2566		H0663: 1, H0125: 1,			

						S0418: 1, S0356: 1, H0051: 1, H0648: 1 and H0543: 1.			
HARAL81	1008349	392	220 - 20	2567.	Ser-24 to Ala-30, ... Arg-55 to Ser-62.	L0752: 6, L0663: 5, L0646: 3, L0754: 3, L0747: 3, H0031: 2, L0794: 2, H0659: 2, H0658: 2, L0748: 2, H0556: 1, H0657: 1, L0005: 1, S0354: 1, S0358: 1, S0410: 1, H0637: 1, H0441: 1, H0455: 1, T0082: 1, H0615: 1, S0440: 1, H0633: 1, S0344: 1, S0426: 1, H0529: 1, L0770: 1, L0769: 1, L0637: 1, L0374: 1, L0771: 1, L0648: 1, L0662: 1, L0766: 1, L0650: 1, L0774: 1, L0775: 1, L0805: 1, L0776: 1, L0655: 1, L0542: 1, L0782: 1, L0809: 1, L0666: 1, L0664: 1, L0665: 1, L0352: 1, H0648: 1, H0521: 1, H0696: 1, S0406: 1, L0740: 1, L0749: 1, L0731: 1 and			

HFTA42	1008350	393	987 - 1100	2568			H0444: 1. S0360: 2, H0123: 2, L0649: 2, L0803: 2, L0666: 2, L0740: 2, L0747: 2, L0750: 2, L0755: 2, H0624: 1, S0418: 1, H0393: 1, H0553: 1, H0124: 1, H0090: 1, S0440: 1, H0646: 1, S0142: 1, L0662: 1, L0776: 1, L0659: 1, L0665: 1, L0438: 1, H0547: 1, H0519: 1, H0659: 1, H0658: 1, H0648: 1, L0777: 1, L0752: 1, H0445: 1, L0599: 1, S0242: 1 and H0542: 1.		
HETDA81	1008358	394	3 - 377	2569	Thr-5 to Ser-12, Thr-74 to Pro-80.		H0046: 2 and H0648: 1.		
HODEI92	1008359	395	1 - 495	2570	His-31 to Asp-45, Glu-56 to Ser-64, Pro-118 to Asp-131.		L0747: 4, L0751: 3, H0615: 2, L0794: 2, L0665: 2, H0659: 2, L0777: 2, L0596: 2, H0341: 1, H0333: 1, H0510: 1, H0328: 1, H0039: 1, L0764: 1, L0657: 1, H0658: 1, S0328: 1 and L0758: 1.		
HODEB58	1008372	396	3 - 455	2571	Thr-25 to Ser-36.		H0360: 14, L0809: 11.		

326

				H0657: 1, S0001: 1, S0282: 1, L0481: 1, H0638: 1, S0356: 1, S0442: 1, S0358: 1, S0410: 1, H0580: 1, H0722: 1, S0045: 1, S0046: 1, S0132: 1, H0549: 1, H0592: 1, H0574: 1, T0060: 1, H0013: 1, S0474: 1, H0581: 1, H0230: 1, H0251: 1, H0309: 1, H0596: 1, H0050: 1, H0242: 1, H0320: 1, L0163: 1, S0051: 1, T0010: 1, S6028: 1, H0179: 1, S0003: 1, H0039: 1, H0644: 1, L0142: 1, H0181: 1, H0617: 1, H0674: 1, S0036: 1, H0591: 1, H0616: 1, H0412: 1, H0202: 1, H0560: 1, S0438: 1, S0144: 1, S0422: 1, S0426: 1, L0772: 1, L0800: 1, L0773: 1, L0521: 1, L0662: 1, L0767: 1, L0766: 1, L5574: 1, L0522: 1, L0804: 1,			
--	--	--	--	--	--	--	--

							L0653: 1, L0776: 1, L0659: 1, L0526: 1, L0782: 1, L5622: 1, L0788: 1, H0689: 1, H0690: 1, H0682: 1, H0658: 1, S0378: 1, H0696: 1, H0134: 1, S0404: 1, H0727: 1, S0028: 1, L0742: 1, L0752: 1, S0434: 1, L0589: 1, S0192: 1, H0423: 1, H0422: 1 and S0458: 1.			
HODEG86	1008379	397	411 - 548	2572			H0615: 3			
HODFA57	1008396	398	138 - 221	2573		Lys-1 to Lys-6, Leu-10 to Asp-17, Pro-19 to Arg-28.	H0615: 4			
HODFB31	1008401	399	1 - 276	2574		Pro-35 to Lys-40, Glu-72 to Gly-77, Pro-85 to Val-90.	H0615: 2, S0278: 1, S0002: 1, H0555: 1 and S0026: 1.			
HTEMP79	1008406	400	317 - 658	2575		Leu-14 to Ser-19.	L0758: 6, L0779: 4, H0038: 3, H0616: 2, L0593: 2, H0644: 1, L0794: 1 and L0594: 1.			
HODEI59	1008423	401	161 - 1291	2576		His-6 to Ser-11, Ser-122 to Asn-128, Leu-216 to Asp-221, Ser-323 to His-328.	H0031: 12, H0521: 11, 20q12-q13.1 H0542: 11, L0745: 9, H0266: 7, H0547: 7, H0551: 6, H0013: 5, S0152: 5, T0049: 4, H0169: 4, H0494: 4,	256540, 600281, 600281		

				L0748: 4, L0591: 4, H0661: 3, H0251: 3, H0046: 3, H0644: 3, H0591: 3, S0002: 3, H0520: 3, S0126: 3, S0028: 3, L0439: 3, L0754: 3, L0757: 3, L0596: 3, H0423: 3, H0171: 2, S0134: 2, S0354: 2, S0358: 2, H0580: 2, S0046: 2, H0587: 2, H0497: 2, T0039: 2, H0599: 2, H0050: 2, L0471: 2, T0010: 2, H0615: 2, H0039: 2, H0090: 2, H0038: 2, H0040: 2, H0488: 2, T0042: 2, S0150: 2, H0529: 2, L0649: 2, L0659: 2, L0438: 2, H0519: 2, H0660: 2, H0555: 2, S3014: 2, S0027: 2, L0777: 2, L0593: 2, L0601: 2, H0653: 2, H0543: 2, H0170: 1, H0556: 1, H0341: 1, S0001: 1, H0664: 1, H0662: 1, H0638: 1, S0418: 1, S0420: 1,		
--	--	--	--	--	--	--

			S0356: 1, H0619: 1, H0393: 1, S0278: 1, H0431: 1, H0608: 1, H0442: 1, H0586: 1, H0643: 1, H0486: 1, H0156: 1, H0575: 1, H0036: 1, S0346: 1, H0581: 1, H0052: 1, H0263: 1, H0544: 1, H0123: 1, H0011: 1, H0014: 1, H0355: 1, H0375: 1, H0188: 1, H0687: 1, H0292: 1, H0328: 1, H0428: 1, H0622: 1, T0023: 1, H0628: 1, H0383: 1, H0165: 1, L0455: 1, H0124: 1, H0135: 1, H0268: 1, H0623: 1, H0100: 1, H0429: 1, H0561: 1, H0509: 1, H0646: 1, H0538: 1, L0800: 1, L0626: 1, L0387: 1, L0654: 1, H0701: 1, H0593: 1, H0711: 1, H0690: 1, H0435: 1, H0658: 1, H0672: 1, L0602: 1, S0206: 1, L0751: 1, L0746: 1, L0731: 1,			
--	--	--	--	--	--	--

								H0444: 1, H0445: 1, S0434: 1, L0587: 1, L0588: 1, L0581: 1, L0604: 1, L0594: 1, S0196: 1, H0506: 1 and H0293: 1.			
HODEF94	1008429	402	2 - 94	2577	Pro-19 to Ser-29.			H0615: 2, H0090: 1, S0002: 1 and H0478: 1.			
HPFCZ53	1008445	403	236 - 769	2578	Lys-1 to Lys-23.			L0754: 40, L0740: 8, H0295: 2, H0663: 2, H0169: 2, H0068: 2, L0770: 2, L0662: 2, L0789: 2, L0748: 2, L0751: 2, L0755: 2, L0589: 2, S0420: 1, L0005: 1, H0586: 1, H0156: 1, H0032: 1, H0100: 1, H0494: 1, L0803: 1, L0806: 1, L0809: 1, H0660: 1, H0672: 1, S0152: 1, L0744: 1, L0779: 1, L0777: 1, L0780: 1, L0591: 1, L0593: 1 and L0601: 1.	6p24	134570	
HWACN71	1008764	404	96 - 1268	2579	Val-7 to Gly-14, Lys-46 to Ala-52, Leu-82 to Phe-89, Lys-94 to Ser-99, Pro-101 to Arg-108,			AR096: 7, AR053: 5, AR089: 4, AR039: 3, AR060: 2, AR055: 2, AR052: 2, AR033: 2, AR061: 2, AR104: 2			

							Ala-123 to Gly-129, Lys-154 to Gly-164, Arg-274 to Gln-287, Asp-294 to Thr-309, Gln-324 to Ala-334, Pro-343 to Asn-359, Lys-368 to Gln-385.	H0457: 2, H0494: 2, H0740: 1, H0581: 1, H0083: 1, L0770: 1, L0769: 1, L0764: 1, L0791: 1 and H0727: 1.			
HOEMU69	1009017	405	342 - 1151	2580		Ser-70 to Trp-88, Lys-154 to Asp-161, Tyr-265 to Lys-270.	AR039: 17, AR052: 11, AR104: 7, AR033: 7, AR096: 7, AR053: 6, AR089: 6, AR060: 3, AR061: 3, AR055: 3 H0415: 2				
HSKNP59	1009095	406	417 - 554	2581		Pro-10 to Pro-16.	AR039: 15, AR089: 10, AR053: 10, AR096: 9, AR055: 8, AR060: 7, AR033: 6, AR061: 5, AR104: 4 L0510: 3, L0504: 1, L0502: 1, L0499: 1, L0514: 1, L0512: 1 and S3012: 1.				
HETBR71	1009343	407	155 - 658	2582		Lys-5 to Phe-58.	L0731: 10, L0759: 6, L0782: 4, L0774: 3, H0046: 2, H0620: 2, L0598: 2, L0769: 2, L0805: 2, L0663: 2, S0380: 2, L0754: 2, L0756: 2, H0170: 1,	Xq22.1		301201, 301835, 311850	

333

								L0598: 1, L0649: 1, L0666: 1, H0660: 1, H0648: 1, H0672: 1, H0696: 1, H0555: 1, L0779: 1, L0755: 1, L0592: 1 and S0192: 1.			
HELHM06	1009362	409	14 - 349	2584	Asp-57 to Ala-62, Gly-98 to Pro-112.			S0045: 1			
HE2AG50	1009365	410	43 - 132	2585	Gly-1 to Ser-6, Pro-20 to Ile-30.			AR089: 1, AR033: 1, AR060: 0, AR096: 0, AR061: 0, AR055: 0, AR039: 0 H0170: 1, H0574: 1, H0052: 1, H0048: 1 and L0766: 1.			
HE2ES61	1009388	411	555 - 427	2586				H0305: 2, L0663: 2, H0170: 1, S0003: 1, L0803: 1 and H0651: 1.			
HE2SO43	1009398	412	1 - 408	2587	Pro-65 to Lys-70, His-112 to Gly-131.			H0624: 1			
HLHCI07	1009403	413	91 - 2	2588	Arg-5 to Gly-11.			H0208: 1, H0123: 1 and H0024: 1.	13q		
HTTBR65	1009414	414	1 - 357	2589	Gly-3 to Thr-9, Arg-30 to Gly-39.			H0305: 1 and H0040: 1.	17q21		109270, 109270, 109270, 109270, 109270, 113705, 113705, 144200,

								148065, 148066, 148066, 148067, 148067, 148069, 148080, 154275, 168610, 171190, 176705, 185800, 200350, 221820, 232200, 249000, 252920, 253250, 600119, 600119, 601363, 601844
HPFCV71	1009453	415	434 - 586	2590			H0328: 1, H0615: 1, H0169: 1, L0807: 1 and L0754: 1.	
HCABR46	1009479	416	169 - 423	2591	Ala-9 to Glu-19, Glu-40 to Asn-46, Asp-55 to Ser-66.	H0125: 1	19p13.2	108725, 120700, 133171, 143890, 147670,

								147670, 147670, 151440, 164953, 231670, 600276, 600957, 601843
HCRCB80	1009482	417	78 - 479	2592	Gln-34 to Ala-45, Glu-47 to Leu-52, Lys-113 to Gln-121.	H0170: 1, H0327: 1, H0038: 1, L0758: 1 and S0276: 1.	22q13.2- q13.31	188826, 250100, 250800, 250800
HPMLW78	1009833	418	1 - 648	2593	Asn-12 to Tyr-19, Glu-33 to Glu-38, Arg-53 to Ser-62.	L0769: 4, L0751: 4, L0471: 2, H0024: 2, L0768: 2, L0748: 2, L0731: 2, L0595: 2, H0685: 1, S0001: 1, H0052: 1, H0050: 1, H0012: 1, H0644: 1, H0617: 1, H0040: 1, H0100: 1, L0637: 1, L0662: 1, L0809: 1, L0665: 1, H0547: 1, H0519: 1, L0780: 1 and L0591: 1.	1q23	104770, 107300, 107670, 131210, 134638, 136132, 145001, 146740, 146740, 146740, 146790, 173610, 176310, 186780, 191030, 227400, 227400, 601412,

								601652, 602491
HODJK75	1009842	419	3 - 428	2594	Ala-26 to Ile-34,	H0615: 2		
HODJX27	1009854	420	1 - 123	2595	Ser-27 to Gly-32.	H0615: 1		
HODJV85	1009857	421	366 - 166	2596	Asp-1 to Gly-9, Glu-17 to Lys-23.	H0615: 1		
HOOJO38	1009918	422	718 - 116	2597	Ala-76 to Lys-87, Glu-110 to Gln-115, Ser-123 to Lys-131, Lys-168 to Ala-174, Pro-178 to Ala-193, Ala-196 to Ala-201.	L0493: 55, L0504: 46, L0512: 42, L0510: 41, L0507: 39, L0509: 35, L0511: 30, L0502: 29, L0500: 25, L0499: 20, L0503: 19, L0498: 13, L0514: 13, H0648: 13, L0506: 10, H0341: 9, H0046: 7, L0505: 7, L0497: 7, H0670: 7, L0520: 6, H0659: 6, S0380: 6, L0508: 5, S0027: 5, S0114: 4, H0657: 4, S0045: 4, H0100: 4, L0515: 4, L0526: 4, L0664: 4, S0126: 4, H0658: 4, S0378: 4, S0028: 4, L0588: 4, L0362: 4, S0026: 4, H0333: 3, H0318: 3, H0090: 3, H0413: 3, S0142: 3, L0646: 3, S0374: 3, H0689: 3, L0750: 3,		

338

339

340

H0546: 4, S0250: 4, H0135: 4, L0775: 4, L0783: 4, L0809: 4, L0663: 4, H0519: 4, H0682: 4, L0439: 4, L0749: 4, S0434: 4, L0591: 4, S0358: 3, S0376: 3, S0408: 3, S0410: 3, S0045: 3, H0550: 3, H0587: 3, H0427: 3, H0599: 3, H0052: 3, H0188: 3, H0628: 3, H0606: 3, H0551: 3, H0413: 3, L0763: 3, L0641: 3, L0773: 3, L0662: 3, L0565: 3, H0547: 3, H0435: 3, L0754: 3, L0597: 3, L0595: 3, S0276: 3, H0686: 2, H0717: 2, S0468: 2, S0046: 2, H0619: 2, H0592: 2, H0333: 2, H0575: 2, H0545: 2, H0050: 2, H0510: 2, H0266: 2, H0412: 2, H0056: 2, H0494: 2, S0466: 2, S0440: 2, L0769: 2, L0637: 2, L0764: 2, L0768: 2,	164009, 168461, 168461, 168461, 180721, 180840, 191181, 193235, 209901, 232600, 259700, 259770, 600045, 600319, 600528, 601884
--	---

342

343

					Ile-162 to Asn-168, Arg-179 to Asp-189, Asp-206 to Asn- 215, Glu-222 to Val-230.	L0759: 2, S0260: 2, S0360: 1, S0045: 1, L0394: 1, H0009: 1, L0471: 1, H0012: 1, H0620: 1, T0003: 1, H0188: 1, H0428: 1, L0564: 1, L0763: 1, L0770: 1, L0769: 1, L0637: 1, L0646: 1, L0643: 1, L0775: 1, L0805: 1, S0028: 1, L0779: 1, L0592: 1, S0276: 1, S0412: 1 and H0506: 1.		
HSDZM65	1010299	425	2 - 337	2600	Ser-18 to Thr-23, Val-91 to Gln-99.	L0758: 8, L0803: 6, L0740: 6, L0809: 5, L0794: 4, L0756: 4, L0752: 4, S0360: 3, H0551: 3, L0527: 3, L0783: 3, H0689: 3, L0777: 3, L0731: 3, T0049: 2, S0222: 2, S0049: 2, H0163: 2, L0766: 2, L0804: 2, L0659: 2, L0518: 2, L0438: 2, H0547: 2, H0521: 2, H0696: 2, L0779: 2, L0485: 2, H0170: 1, H0171: 1, H0656: 1, H0381: 1,		

345

HPDOC39	1010400	426	144 - 608	2601	Ser-16 to Val-25, His-105 to Lys-125, Tyr-147 to Ser-155.	S0446: 1 and H0506: 1, S0360: 8, S0358: 7, H0547: 6, H0561: 5, S0126: 5, S0418: 4, L0766: 4, L0748: 4, L0755: 4, L0362: 4, H0686: 3, H0591: 3, H0521: 3, L0740: 3, L0777: 3, L0752: 3, L0731: 3, L0758: 3, H0445: 3, L0595: 3, S0196: 3, H0656: 2, H0663: 2, S0356: 2, S0376: 2, S0444: 2, S0046: 2, S0278: 2, H0331: 2, H0574: 2, H0581: 2, H0052: 2, H0046: 2, H0266: 2, S0003: 2, H0090: 2, H0623: 2, T0042: 2, H0494: 2, L0768: 2, L0803: 2, L0659: 2, L0809: 2, H0144: 2, H0520: 2, H0522: 2, L0439: 2, L0596: 2, L0591: 2, L0601: 2, H0136: 2, S0242: 2, H0423: 2, H0265: 1, H0341: 1, S0001: 1, H0305: 1, H0589: 1,		
---------	---------	-----	-----------	------	---	---	--	--

347

HE2PS15	1010525	427	3 - 236	2602	Gly-1 to Asp-8, Asp-62 to Ala-67.	S0406: 1, L0754: 1, L0747: 1, L0750: 1, L0786: 1, L0759: 1, S0260: 1, S0026: 1, H0542: 1, H0543: 1, H0422: 1 and S0452: 1. AR104: 72, AR060: 48, AR089: 29, AR055: 25, AR096: 16, AR061: 10 L0755: 9, L0757: 8, L0519: 6, L0748: 6, L0763: 5, L0774: 5, L0779: 5, H0657: 4, S0222: 4, L0471: 4, L0766: 4, H0670: 4, L0588: 4, S0408: 3, S0438: 3, L0520: 3, L0769: 3, S0374: 3, H0352: 3, H0686: 2, H0341: 2, S0444: 2, S0360: 2, S0046: 2, H0261: 2, H0333: 2, L0622: 2, H0494: 2, S0422: 2, L0767: 2, L0768: 2, L0775: 2, L0809: 2, H0659: 2, S0328: 2, H0696: 2, S0406: 2, L0747: 2, L0750: 2, L0731: 2,	14q32.33	144120, 147020, 147110
---------	---------	-----	---------	------	--------------------------------------	--	----------	------------------------------

			H0667: 2, H0542: 2, H0171: 1, S0114: 1, H0656: 1, S0116: 1, S0358: 1, S0410: 1, H0580: 1, S0007: 1, S0045: 1, H0370: 1, H0357: 1, H0438: 1, L0623: 1, H0486: 1, T0114: 1, T0109: 1, H0250: 1, H0098: 1, H0036: 1, H0004: 1, S0010: 1, H0318: 1, S0049: 1, H0052: 1, L0738: 1, H0572: 1, H0562: 1, H0082: 1, H0051: 1, S0048: 1, S0388: 1, H0083: 1, L0044: 1, H0687: 1, H0428: 1, H0031: 1, H0617: 1, S0364: 1, H0708: 1, S0036: 1, H0412: 1, H0413: 1, S0466: 1, H0131: 1, S0142: 1, L0770: 1, L0373: 1, L0372: 1, L0374: 1, L0764: 1, L0375: 1, L0806: 1, L0657: 1, L0512: 1, L0659: 1, L0540: 1, L0542: 1, L0526: 1,					
--	--	--	--	--	--	--	--	--

							L0783: 1, L0663: 1, S0216: 1, L0565: 1, S0126: 1, H0682: 1, H0684: 1, H0658: 1, H0648: 1, H0672: 1, H0651: 1, S0378: 1, S0380: 1, H0710: 1, S0152: 1, H0214: 1, H0576: 1, L0745: 1, L0753: 1, L0608: 1, L0594: 1, S0194: 1, S0276: 1, H0543: 1, H0423: 1 and S0424: 1.			
HTTKH22	1010596	428	266 - 1396	2603	Ser-42 to Pro-49, Asp-86 to Gly-92, Lys-97 to Glu-109.		H0670: 4, H0616: 3, L0439: 3, L0758: 3, S0354: 2, H0038: 2, S0116: 1, H0402: 1, H0637: 1, S0474: 1, H0644: 1, H0673: 1, S0366: 1, H0634: 1, L0351: 1, L0638: 1, L0764: 1, L0766: 1, L0803: 1, L0775: 1, L0805: 1, L0792: 1, L0666: 1, H0520: 1, L0780: 1 and H0542: 1.		12q13-q14	10777, 123829, 123940, 139350,
HNOJG33	1010698	429	1209 - 490	2604	Arg-1 to Pro-15, Ser-146 to Arg-155, Leu-168 to Asp-174, Lys-181 to Thr-186,		S0040: 3, L0748: 3, S0356: 2, S0358: 2, S0360: 2, H0416: 2, L0752: 2, H0624: 1,			

					Phe-226 to Pro-236.	H0265: 1, H0556: 1, S0116: 1, H0255: 1, S0376: 1, S0278: 1, H0575: 1, H0251: 1, L0471: 1, H0373: 1, S0051: 1, H0356: 1, H0687: 1, H0288: 1, H0252: 1, H0135: 1, H0634: 1, H0551: 1, S0210: 1, L0438: 1, H0658: 1, H0666: 1, S0330: 1, S3014: 1, L0744: 1, L0439: 1, L0745: 1, S0260: 1, H0595: 1 and S0196: 1.		139350, 147570, 148040, 148041, 148043, 148070, 181430, 231550, 252940, 264700, 600194, 600231, 600536, 600808, 600956, 601284, 601769, 601769, 601928, 602116, 602153
HPDVK48	1011090	430	1085 - 1630	2605	Lys-14 to Ala-21, Ser-23 to Lys-31, Glu-38 to Gln-47, Arg-72 to Leu-78, Gln-87 to Asn-94, Ser-110 to Lys-118, Glu-172 to Lys-182.	H0650: 2, H0253: 2, L0769: 2, S0116: 1, H0333: 1, H0421: 1, H0083: 1, H0166: 1, H0616: 1, S0208: 1, L0645: 1, L0655: 1, L0666: 1, H0547: 1, H0593: 1, H0689: 1, H0658: 1, S0434: 1 and		

HNORJ10	1011186	431	3 - 1628	2606	<p>Asn-42 to Pro-48, Glu-81 to Lys-86, Val-94 to Thr-99, Lys-105 to Asp-111, Phe-129 to Glu-142, Ser-154 to Gln-160, Glu-173 to Ala-182, Gln-209 to Glu-234, Asp-259 to Asp-272, Ser-303 to Pro-311, Thr-321 to Asn-329, Ala-335 to Glu-349, Thr-371 to Gly-389, Gln-395 to Asn-405, Thr-415 to Asn-423, Asn-431 to Ser-443, Lys-475 to Gln-484, Ser-502 to Gly-507, Ile-522 to Asn-527.</p>	<p>H0352: 1, S0003: 17, H0551: 11, L0483: 9, H0547: 9, S0212: 7, S0152: 7, H0521: 7, H0423: 7, L0766: 6, L0666: 6, S0214: 5, S0126: 5, H0543: 5, S0420: 4, S0360: 4, H0411: 4, H0032: 4, H0598: 4, S0422: 4, L0649: 4, L0665: 4, L0757: 4, H0657: 3, S0376: 3, L0717: 3, H0574: 3, H0486: 3, H0069: 3, H0427: 3, H0581: 3, H0046: 3, H0457: 3, H0271: 3, H0622: 3, H0494: 3, L0667: 3, L0655: 3, L0659: 3, H0519: 3, H0672: 3, H0710: 3, L0754: 3, L0759: 3, L0593: 3, L0601: 3, H0422: 3, H0218: 2, S0040: 2, H0713: 2, H0717: 2, H0650: 2, H0656: 2, S0356: 2, S0132: 2, S0222: 2, H0333: 2, H0009: 2, L0157: 2,</p>	<p>114q21-q24</p>	<p>107970, 115650, 182600, 232700, 602086, 602091, 602616</p>
---------	---------	-----	----------	------	--	--	-------------------	---

353

354

							L0751: 1, L0779: 1, L0777: 1, L0780: 1, L0753: 1, L0731: 1, H0445: 1, H0595: 1, S0434: 1, S0436: 1, L0591: 1, S0011: 1, H0668: 1, S0196: 1, L0469: 1, S0424: 1 and S0458: 1.		
HPDRG92	1011209	432	1 - 291	2607		Pro-51 to Phe-57, Ser-87 to Thr-94.	H0658: 3, L0748: 3, H0052: 1 and L0741: 1.		
HOFMQ81	1011303	433	2 - 544	2608		His-1 to Gly-12, Ser-27 to Ser-37, Pro-59 to Ser-68, Glu-94 to Ala-102, Ile-129 to Ser-143, Pro-145 to Pro-150.	AR033: 2, AR089: 2, AR039: 2, AR061: 2, AR055: 1, AR096: 1, AR060: 1, AR104: 1, AR053: 0 H0415: 2		
HOFNF27	1011315	434	3 - 680	2609		Pro-10 to Lys-26, Asn-44 to Tyr-53, Arg-104 to Lys-114, Arg-121 to Ala-134, Gly-155 to Thr-177, Gln-201 to Ser-206.	AR053: 3, AR089: 2, AR096: 1, AR060: 1, AR055: 1, AR104: 1, AR033: 1, AR039: 1, AR061: 0 H0415: 3, H0539: 2, H0355: 1 and H0375: 1.		
HOFND52	1011316	435	126 - 542	2610		Pro-9 to Arg-15, Ala-17 to Thr-26, Pro-39 to Lys-45, Asp-54 to Ala-61, Leu-86 to Gly-91, Phe-99 to Thr-106.	AR096: 1, AR060: 1, AR061: 1, AR033: 1, AR089: 1, AR039: 1, AR053: 0, AR055: 0, AR104: 0 H0415: 2		

HOFNL96	1011321	436	3 - 575	2611	Pro-3 to Ala-17, Asn-56 to Asp-62.	H0415: 1		
HOFNF53	1011332	437	2 - 1183	2612	Pro-26 to Arg-32, Gly-68 to Glu-75, Cys-111 to Asp-116.	AR052: 2, AR053: 1, AR089: 1, AR096: 1, AR055: 1, AR039: 1, AR060: 1, AR033: 1, AR061: 1, AR104: 0 H0415: 2		
HOFMU61	1011360	438	62 - 1249	2613	Ala-39 to Thr-44, Thr-171 to Lys-180.	AR052: 1, AR096: 1, AR089: 1, AR060: 1, AR033: 1, AR053: 0, AR061: 0, AR104: 0, AR039: 0, AR055: 0 H0415: 4		
HOFOF35	1011499	439	1 - 639	2614	Ser-13 to Glu-26, Ser-48 to Val-55, Lys-85 to Thr-91, Asp-115 to Asn-126, Asp-169 to Lys-175.	H0415: 2		
HULFJ37	1011537	440	915 - 364	2615		H0620: 11, H0683: 10, H0483: 7, H0046: 7, H0687: 6, S0360: 4, H0012: 4, H0428: 4, L0471: 3, L0665: 3, H0520: 3, H0670: 3, H0672: 3, L0750: 3, H0624: 2, H0662: 2, H0333: 2, H0013: 2, H0530: 2, H0024: 2,	11p11.2	133701, 168500, 171650, 176930, 176930, 600623, 600811, 600958

357

								S0053: 1, H0519: 1, H0658: 1, H0660: 1, H0666: 1, S0027: 1, L0743: 1, L0740: 1, L0747: 1, L0749: 1, L0779: 1, L0777: 1, L0752: 1, L0753: 1, L0757: 1, L0759: 1, H0445: 1, H0595: 1 and L0595: 1.			
HOFME75	1011607	441	2 - 1024	2616	Arg-1 to Gly-7.		H0415: 5		11q13.5	133780, 266150, 276903, 276903, 276903	
HOPKO74	1011608	442	136 - 1482	2617	Arg-6 to Gly-13, Gln-132 to Glu-137, Arg-179 to Ala-200, Ala-209 to Lys-215, Glu-218 to Asp-227, Pro-239 to Lys-244, Tyr-276 to Lys-283, Ile-361 to Asp-367, Met-371 to Asp- 376, Asp-391 to Lys-411, Pro-440 to Leu-449.	L0747: 55, H0551: 25, H0135: 24, S0126: 20, H0619: 14, L0750: 14, S0418: 12, S0360: 12, H0547: 12, S0028: 12, L0754: 12, L0659: 11, H0123: 10, L0665: 9, H0693: 9, S3014: 9, S0027: 9, S0040: 8, L0654: 8, L0595: 8, H0050: 7, L0363: 7, L0666: 7, L0601: 7, S0212: 6, L0717: 6, H0599: 6, H0081: 6, H0012: 6, H0024: 6,	11q13.5	133780, 266150, 276903, 276903, 276903			

	S0250: 6, H0623: 6, H0520: 6, S0390: 6, S0436: 6, L0593: 6, H0645: 5, H0545: 5, L0483: 5, H0553: 5, H0040: 5, L0770: 5, L0565: 5, H0519: 5, H0684: 5, S0037: 5, L0743: 5, L0605: 5, S0342: 4, S0420: 4, S0376: 4, S0045: 4, S0046: 4, H0486: 4, H0266: 4, H0286: 4, H0100: 4, L0769: 4, L5565: 4, L0662: 4, L0649: 4, L0776: 4, L0663: 4, H0658: 4, L0749: 4, L0731: 4, L0757: 4, L0597: 4, L0591: 4, H0352: 4, H0624: 3, H0265: 3, H0556: 3, S0476: 3, H0013: 3, H0253: 3, H0544: 3, H0428: 3, H0031: 3, H0644: 3, L0762: 3, L0637: 3, L5566: 3, L0768: 3, L0775: 3, L0375: 3, L0657: 3, L0664: 3, S0152: 3, L0744: 3.				
--	--	--	--	--	--

360

	H0730: 1, H0734: 1, H0437: 1, H0550: 1, H0441: 1, H0431: 1, H0392: 1, H0249: 1, H0586: 1, H0587: 1, H0497: 1, H0632: 1, T0114: 1, H0156: 1, L0021: 1, H0575: 1, T0048: 1, H0318: 1, S0049: 1, H0309: 1, H0546: 1, H0041: 1, H0172: 1, H0620: 1, T0003: 1, H0057: 1, H0051: 1, H0375: 1, H0687: 1, H0290: 1, H0284: 1, H0252: 1, H0604: 1, H0628: 1, H0617: 1, H0606: 1, H0598: 1, H0063: 1, H0087: 1, H0056: 1, H0494: 1, H0560: 1, H0359: 1, H0561: 1, S0306: 1, H0647: 1, H0646: 1, S0208: 1, S0002: 1, L0369: 1, L0763: 1, L0772: 1, L0641: 1, L0642: 1, L0643: 1, L0764: 1, L0765: 1, L0648: 1, L0650: 1, L0774: 1,	
--	--	--

362

H0309: 3, H0039: 3, H0617: 3, H0413: 3, L0809: 3, L0519: 3, S0126: 3, S0406: 3, H0576: 3, H0422: 3, S0134: 2, L0808: 2, S0116: 2, H0661: 2, H0663: 2, H0393: 2, L0394: 2, S0222: 2, H0586: 2, L0622: 2, L0623: 2, H0486: 2, T0109: 2, S0280: 2, H0581: 2, H0596: 2, H0231: 2, S0003: 2, T0006: 2, H0674: 2, H0598: 2, H0100: 2, S0438: 2, H0633: 2, L0772: 2, L0521: 2, L0767: 2, H0144: 2, S0374: 2, H0672: 2, S0328: 2, S0330: 2, S0152: 2, S0032: 2, L0755: 2, L0759: 2, S0031: 2, H0595: 2, S0026: 2, T0002: 1, H0686: 1, H0685: 1, S6024: 1, H0294: 1, T0049: 1, S0282: 1, H0255: 1, H0669: 1, H0664: 1, H0177: 1,
--

	S0376: 1, S0444: 1, S0410: 1, S0045: 1, S0132: 1, H0411: 1, S0278: 1, S6022: 1, H0441: 1, H0609: 1, T0039: 1, H0013: 1, H0635: 1, H0042: 1, T0048: 1, H0421: 1, H0173: 1, H0052: 1, H0204: 1, H0597: 1, H0044: 1, H0546: 1, H0046: 1, H0150: 1, H0009: 1, H0023: 1, H0373: 1, L0163: 1, H0201: 1, S0048: 1, S0388: 1, S0051: 1, H0408: 1, H0238: 1, H0622: 1, T0023: 1, H0031: 1, H0606: 1, H0673: 1, H0163: 1, H0040: 1, H0634: 1, H0616: 1, T0069: 1, T0041: 1, H0494: 1, H0646: 1, S0144: 1, S0142: 1, S0344: 1, L0598: 1, L0762: 1, L0763: 1, L0769: 1, L0637: 1, L0761: 1, L0373: 1, L0773: 1, L0522: 1, L0803: 1,	
--	--	--

								L0774: 1, L0375: 1, L0653: 1, L0542: 1, L0782: 1, L0783: 1, L0789: 1, S0428: 1, S0053: 1, H0690: 1, H0682: 1, H0670: 1, H0651: 1, S0378: 1, S0380: 1, H0134: 1, H0436: 1, S0027: 1, L0751: 1, S0260: 1, H0445: 1, S0394: 1, S0011: 1, H0653: 1, H0136: 1, S0194: 1 and H0423: 1.		
HDHEB13	1011773	444	31 - 972	2619	Gly-1 to Glu-11, Arg-54 to Ser-60, Pro-68 to Gly-78, Pro-92 to Gly-126, Ala-134 to Asn-143, Thr-145 to Gly-162, Gly-173 to Ser-179, Lys-187 to Leu-194, Glu-205 to Ser-213, Ser-283 to Phe-289, Ala-306 to Glu-313.			L0777: 4, L0747: 3, S0007: 1, H0351: 1, H0550: 1, H0013: 1, H0570: 1, H0123: 1, H0019: 1, H0012: 1, H0553: 1, L0794: 1, L0759: 1 and H0352: 1.		
HDTMG36	1011821	445	3 - 248	2620	Pro-28 to Gln-35, Leu-71 to Pro-77.					
HVVCJ38	1011830	446	2 - 817	2621	Thr-121 to Asn-126, Ala-134 to Ala-140, Arg-174 to Arg-184,			L0771: 5, L0439: 5, L0761: 4, L0794: 4, L0809: 4, L0666: 4,		

366

							L0647: 1, L0791: 1, L0438: 1, H0519: 1, H0435: 1, H0658: 1, H0670: 1, H0672: 1, S0328: 1, H0521: 1, H0436: 1, L0741: 1, L0749: 1, L0779: 1, L0759: 1, H0445: 1, S0398: 1 and H0352: 1.			
HPAMY22	1011840	447	1 - 180	2622	Pro-18 to Gln-36, Ser-43 to Ala-57.		H0682: 1			
HE9CP86	1011847	448	107 - 727	2623	Arg-13 to Arg-19, Asp-37 to Asp-43, Glu-127 to Asp-132, Asn-152 to Glu-171, Ala-179 to Ala-193.		L0748: 18, L0749: 8, L0755: 7, H0686: 4, S0360: 3, H0519: 3, H0659: 3, L0747: 3, L0758: 3, H0341: 2, H0622: 2, H0040: 2, H0616: 2, L0772: 2, L0375: 2, L0754: 2, L0779: 2, H0542: 2, H0294: 1, H0657: 1, H0656: 1, S0116: 1, H0663: 1, H0638: 1, S0376: 1, H0393: 1, H0083: 1, H0030: 1, L0055: 1, H0068: 1, H0591: 1, H0038: 1, H0412: 1, H0100: 1, L0475: 1, S0422: 1, L0763: 1, L0771: 1,			

							L0767: 1, L0768: 1, L0784: 1, L0776: 1, L0633: 1, L0783: 1, L0665: 1, H0144: 1, H0682: 1, S0378: 1, H0627: 1, L0752: 1, L0731: 1, S0026: 1, H0665: 1, S0242: 1 and H0543: 1.		
HPDOU46	1011883	449	24 - 692	2624			H0658: 2, L0750: 2, L0806: 1, L0790: 1 and L0779: 1.		
HFCDW73	1011901	450	3 - 425	2625			H0575: 1 and H0009: 1.		
HOVEB13	1011919	451	21 - 905	2626	Val-7 to Ser-12, Leu-79 to Asn-87, Lys-120 to Ala-125, Ala-166 to Arg-171, Lys-208 to Phe-217, Gln-234 to Pro-241, Asp-285 to Gln-290.		AR033: 6, AR089: 5, AR096: 4, AR055: 3, AR052: 3, AR060: 3, AR053: 2, AR061: 2, AR039: 1, AR104: 0 L0779: 4, H0428: 3, L0773: 2, L0662: 2, L0659: 2, L0602: 2, L0777: 2, L0596: 2, L0608: 2, H0170: 1, H0580: 1, S0045: 1, T0048: 1, H0052: 1, L0471: 1, H0628: 1, L0770: 1, L0761: 1, L0805: 1, L0653: 1, L0657: 1, L0512: 1,		

						H0682: 1, H0672: 1, L0748: 1, L0740: 1, L0749: 1, L0757: 1, S0031: 1, H0543: 1 and H0677: 1.			
HPAMS93	1011948	452	74 - 1114	2627		L0754: 8, L0766: 6, L0439: 6, S0414: 4, L0758: 4, S0360: 3, L0803: 3, L0666: 3, L0756: 3, L0731: 3, S0218: 2, H0676: 2, H0251: 2, H0457: 2, H0083: 2, H0038: 2, H0616: 2, L0770: 2, L0775: 2, H0144: 2, H0682: 2, H0436: 2, L0752: 2, L0485: 2, L0594: 2, H0624: 1, S0430: 1, H0657: 1, H0341: 1, S0358: 1, H0411: 1, H0431: 1, T0039: 1, H0013: 1, L0021: 1, H0194: 1, H0050: 1, H0020: 1, H0051: 1, H0375: 1, H0594: 1, S0003: 1, H0272: 1, S0386: 1, H0494: 1, S0438: 1, H0652: 1, S0422: 1, H0529: 1, L0765: 1,			

							L0771: 1, L0521: 1, L0804: 1, L0774: 1, L0651: 1, L0776: 1, L0655: 1, L0659: 1, L0809: 1, L0647: 1, L0789: 1, L0790: 1, L0663: 1, L0664: 1, L0665: 1, S0374: 1, L0438: 1, H0519: 1, S0188: 1, H0478: 1, H0626: 1, S0028: 1, L0779: 1, L0777: 1, L0780: 1, L0759: 1, S0031: 1, H0445: 1 and S0026: 1.			
HCRBN71	1011966	453	1 - 420	2628			L0776: 6, L0766: 5, L0777: 3, L0758: 3, L0755: 2, H0327: 1, L0768: 1, L0805: 1, L0655: 1, L0788: 1, H0648: 1, H0672: 1, S0406: 1, L0747: 1, L0752: 1, L0757: 1 and S0196: 1.		15q22.1	151670, 191010, 601780
HCRNC60	1012005	454	637 - 1302	2629	Pro-16 to Asp-25, Arg-44 to Glu-50, Ser-63 to Arg-69, Glu-108 to Arg-115, Lys-122 to Gly-136, Arg-143 to Met-151,		L0471: 11, H0251: 9, L0163: 7, H0599: 5, H0295: 4, H0373: 4, S0210: 4, S0126: 3, S0356: 2, S0358: 2, H0619: 2, H0012: 2,			

371

HSPSJ24	1012064	455	284 - 925	2630	Pro-83 to Gln-90, Ala-123 to Gly-131, Glu-174 to Pro-183.	S0011: 1, H0653: 1, H0665: 1, S0242: 1 and H0506: 1. S0358: 2, S0360: 2, H0251: 2, H0622: 2, S0144: 2, L0659: 2, L0751: 2, L0777: 2, H0265: 1, S0134: 1, H0657: 1, H0486: 1, H0575: 1, S0010: 1, H0581: 1, H0052: 1, H0085: 1, H0266: 1, H0687: 1, H0644: 1, H0617: 1, L0662: 1, L0766: 1, L0549: 1, L0774: 1, L0775: 1, L0806: 1, L0657: 1, L0382: 1, H0683: 1, H0522: 1, H0555: 1, H0576: 1, L0754: 1, L0749: 1, L0758: 1, L0599: 1 and S0446: 1.	14q11.2	182600, 186880, 190195, 190195, 222700, 600243, 602279, 602279
HPCPB22	1012076	456	3 - 554	2631	Arg-88 to Lys-93, Tyr-101 to Gly-107, Arg-169 to Pro-184.	H0659: 2 and L0378: 1.		
HOVDZ22	1012136	457	2 - 169	2632	Tyr-1 to Gly-13.	H0529: 7, L0766: 6, L0809: 6, L0777: 5, H0428: 3, H0656: 2, H0013: 2, H0620: 2, L0806: 2, L0665: 2,		

HBZSK53	1012240	458	2 - 721	2633	Pro-6 to Gln-11.	H0547: 2, L0748: 2, L0747: 2, L0756: 2, L0601: 2, H0484: 1, H0192: 1, S0420: 1, S0358: 1, H0575: 1, H0581: 1, H0046: 1, H0012: 1, T0010: 1, H0266: 1, H0622: 1, H0165: 1, H0673: 1, L0456: 1, H0068: 1, H0135: 1, H0087: 1, H0264: 1, H0412: 1, H0560: 1, L0763: 1, L0770: 1, L0771: 1, L0649: 1, L0561: 1, L0375: 1, L0805: 1, L0776: 1, L0518: 1, L0783: 1, L0666: 1, L0663: 1, H0520: 1, H0519: 1, S0126: 1, H0659: 1, H0672: 1, H0539: 1, H0436: 1, S3014: 1, L0741: 1, L0749: 1, L0750: 1, L0779: 1, L0731: 1, L0589: 1, L0581: 1, L0608: 1 and S0011: 1.	H0584: 59, S0278: 16, S0444: 10, L0775: 10, L0809: 10, H0545: 9
---------	---------	-----	---------	------	------------------	--	---

374

375

					Leu-38 to Gly-59, Pro-62 to Thr-75, Met-83 to Val-90, Thr-94 to Ser-105, Pro-109 to Glu-125, Phe-134 to Ser-139, Ile-141 to Lys-162, Cys-166 to Pro-180, Leu-202 to Pro-207, Ile-248 to Asn-253.	S0114: 2, H0123: 2, H0494: 2, H0445: 2, H0663: 1, H0455: 1, H0036: 1, H0457: 1, H0050: 1, H0039: 1, H0212: 1, H0433: 1, L0766: 1, S0206: 1 and L0749: 1.		
HCONM62	1012454	460	20 - 1306	2635		H0521: 181, L0748: 11, H0551: 10, H0617: 8, H0046: 7, L0731: 7, H0623: 6, L0663: 6, H0547: 6, H0265: 5, S0418: 5, H0009: 5, H0553: 5, H0670: 5, L0740: 5, L0759: 5, H0556: 4, S0376: 4, S0046: 4, H0266: 4, H0135: 4, S0344: 4, L0665: 4, S0374: 4, H0689: 4, H0435: 4, H0658: 4, S0114: 4, S0206: 4, L0596: 4, H0543: 4, S0212: 3, H0483: 3, S0410: 3, S0132: 3, H0592: 3, H0012: 3, H0620: 3, H0039: 3, H0488: 3,	7q31	126650, 126650, 164860, 180105, 222800, 246900, 274600, 274600, 602081

377

	H0341: 1, S0282: 1, H0255: 1, H0661: 1, H0662: 1, S0420: 1, S0356: 1, S0358: 1, S0444: 1, S0408: 1, H0645: 1, H0261: 1, H0550: 1, S0222: 1, H0441: 1, H0370: 1, H0587: 1, S0005: 1, H0333: 1, H0331: 1, T0040: 1, T0082: 1, T0048: 1, S0182: 1, H0318: 1, H0581: 1, S0049: 1, H0196: 1, H0251: 1, H0596: 1, H0327: 1, H0544: 1, H0572: 1, H0050: 1, L0471: 1, H0687: 1, H0286: 1, S0340: 1, S0003: 1, H0428: 1, H0033: 1, H0604: 1, H0644: 1, H0628: 1, H0181: 1, H0606: 1, L0055: 1, H0169: 1, L0455: 1, H0124: 1, S0366: 1, S0036: 1, H0040: 1, H0063: 1, H0433: 1, S0038: 1, L0475: 1, H0132: 1, H0641: 1, S0144: 1,	
--	--	--

HOGU69	1012459	461	2 - 691	2636	Arg-1 to Ala-11, Ser-118 to Gln-126, Leu-200 to Thr-207, Lys-213 to Ala-218, Glu-225 to Thr-230.	S0422: 1, S0002: 1, L0598: 1, H0529: 1, L0641: 1, L0374: 1, L0645: 1, L0648: 1, L0650: 1, L0375: 1, L0378: 1, L0806: 1, L0653: 1, L0776: 1, L0655: 1, L0661: 1, L0634: 1, L0636: 1, L0517: 1, L0518: 1, L0384: 1, L0647: 1, L0789: 1, L0791: 1, L0792: 1, H0144: 1, H0701: 1, S0126: 1, H0690: 1, H0659: 1, H0672: 1, H0539: 1, S0378: 1, H0518: 1, S0152: 1, S0044: 1, H0576: 1, H0631: 1, S0032: 1, L0741: 1, L0743: 1, L0745: 1, L0779: 1, L0752: 1, L0592: 1, H0668: 1 and H0542: 1.	L0740: 13, L0731: 10, L0755: 8, L0752: 6, H0551: 5, L0766: 5, H0672: 5, L0776: 4, L0757: 4, L0759: 4, H0494: 3, L0775: 3,	5q22-q23	121050, 126150, 159000, 175100, 175100, 175100,
--------	---------	-----	---------	------	--	---	--	----------	--

L0529: 3, H0521: 3, H0318: 2, H0178: 2, H0553: 2, H0641: 2, L0763: 2, L0770: 2, L0769: 2, L0662: 2, L0651: 2, L0659: 2, L0519: 2, L0750: 2, S0434: 2, H0624: 1, T0002: 1, H0650: 1, S0212: 1, H0638: 1, S0358: 1, S0444: 1, H0637: 1, S0132: 1, H0431: 1, H0586: 1, H0497: 1, H0530: 1, H0546: 1, H0545: 1, H0355: 1, H0510: 1, S0314: 1, H0598: 1, H0413: 1, H0560: 1, S0438: 1, H0509: 1, H0633: 1, S0422: 1, L0371: 1, L0764: 1, L0765: 1, L0768: 1, L0650: 1, L0774: 1, L0806: 1, L0657: 1, L0809: 1, L0664: 1, L0665: 1, H0144: 1, H0547: 1, H0682: 1, H0435: 1, H0648: 1, H0539: 1, S0380: 1, S0152: 1, H0555: 1,	175100, 175100, 175100, 179095, 192974, 192974, 601596
--	--

HVVBD93	1012469	462	2 - 829	2637	Gln-3 to Cys-12, Thr-19 to Thr-25.	L0749: 1, L0758: 1, H0445: 1, L0595: 1 and S0192: 1. L0758: 5, L0769: 4, L0766: 3, L0809: 3, L0774: 2, L0790: 2, L0663: 2, L0439: 2, L0752: 2, S0218: 1, H0583: 1, S0442: 1, S6022: 1, H0441: 1, H0574: 1, H0150: 1, S0388: 1, S0364: 1, H0743: 1, L0369: 1, L0770: 1, L0638: 1, L0644: 1, L0764: 1, L0648: 1, L0662: 1, L0794: 1, L0803: 1, L0636: 1, L0368: 1, L0666: 1, L0664: 1, L0565: 1, L0438: 1, H0682: 1, H0672: 1, L0741: 1, L0743: 1, L0748: 1, L0751: 1, L0754: 1, L0747: 1, L0749: 1, L0777: 1, L0759: 1, S0434: 1 and L0592: 1.		
HCOMV86	1012482	463	313 - 834	2638		H0521: 91, H0580: 23, H0522: 22, H0445: 14, H0638: 12, H0656: 11, <		

382

HCONJ23	1012519	464	43 - 990	2639	Met-8 to Lys-13, Pro-23 to Trp-30.	H0647: 1, H0646: 1, S0002: 1, S0426: 1, L0768: 1, L0649: 1, L0805: 1, L0659: 1, H0702: 1, H0689: 1, H0684: 1, H0670: 1, H0539: 1, H0709: 1, S0146: 1, H0576: 1, L0744: 1, L0754: 1, L0749: 1, L0750: 1, L0777: 1, L0752: 1, L0755: 1, S0260: 1, S0308: 1, H0707: 1, L0581: 1, H0677: 1 and H0506: 1.	8q11	600899
						L0777: 14, L0748: 9, L0747: 7, S0026: 6, S0360: 4, H0519: 4, L0749: 4, L0759: 4, H0677: 4, H0686: 3, H0014: 3, H0090: 3, L0662: 3, L0794: 3, L0766: 3, H0659: 3, S0404: 3, L0439: 3, L0740: 3, L0754: 3, L0750: 3, S0276: 3, H0170: 2, H0171: 2, H0657: 2, H0341: 2, S0212: 2, S0420: 2, S0356: 2, S0444: 2,		

								S0450: 1, L0065: 1, S0422: 1, S0002: 1, L0598: 1, H0529: 1, L0770: 1, L0769: 1, L0761: 1, L0646: 1, L0649: 1, L0388: 1, L0775: 1, L0652: 1, L0629: 1, L0527: 1, L0790: 1, L0666: 1, L0663: 1, L0664: 1, S0052: 1, H0691: 1, H0520: 1, H0547: 1, H0682: 1, H0658: 1, H0670: 1, H0666: 1, H0648: 1, S0146: 1, L0743: 1, L0751: 1, L0752: 1, H0445: 1, S0434: 1, L0608: 1, H0665: 1, S0192: 1, S0194: 1, H0543: 1 and H0423: 1.			
HVVBL04	1012536	465	2 - 310	2640	Lys-2 to Glu-13, Asn-39 to Glu-47, Arg-49 to Glu-56, Lys-73 to Arg-85.	H0672: 2					
HVVAF65	1012542	466	3 - 731	2641		L0748: 19, L0439: 7, L0731: 6, L0775: 4, S0356: 2, H0421: 2, H0509: 2, L0805: 2, L0783: 2, L0809: 2,	17q24-q25	114290, 115660, 138033, 139250, 148500,			

386

387

388

HVVA56	1012568	468	3 - 1382	2643	Cys-2 to Ser-16, Glu-55 to Lys-61, Pro-83 to Leu-88, Ser-135 to Pro-148, Val-152 to Arg-163, Pro-223 to Thr-230, Ala-242 to Val-253, Arg-258 to Glu-274, Gly-290 to Asp-300, Lys-337 to Asn-345, Asp-373 to Ala-398, Gly-401 to Lys-406, Gln-410 to Ala-430, Pro-433 to Gln-460.	S0434: 1, L0604: 1 and H0542: 1. L0766: 9, L0777: 9, H0529: 8, H0521: 7, L0731: 7, S0360: 6, L0758: 6, H0494: 5, L0749: 5, L0759: 5, S0376: 4, H0639: 4, S0422: 4, L0665: 4, H0144: 4, H0520: 4, H0547: 4, L0439: 4, H0423: 4, S0424: 4, H0581: 3, L0471: 3, H0266: 3, S0150: 3, L0764: 3, L0803: 3, L0659: 3, L0666: 3, H0519: 3, H0659: 3, H0696: 3, L0755: 3, H0716: 2, H0662: 2, S0356: 2, S0046: 2, H0013: 2, H0545: 2, H0457: 2, H0551: 2, H0100: 2, L0475: 2, L0598: 2, L0763: 2, L0770: 2, L0637: 2, L0772: 2, L0765: 2, L0662: 2, L0649: 2, L0774: 2, L0775: 2, L0776: 2, L0809: 2, H0689: 2, S0406: 2.		
--------	---------	-----	----------	------	---	---	--	--

390

							S0460: 1, H0506: 1 and H0352: 1.		
HODEG95	1012599	469	243 - 749	2644	Arg-33 to Gly-38, Pro-40 to Lys-52.		H0615: 2 and H0343: 1.		
HCOOX52	1012600	470	2 - 1567	2645	Arg-41 to Gly-65, Pro-88 to Ser-96, Thr-104 to Thr-141, Glu-209 to Asn-214, Arg-263 to Ser-269, Ser-274 to Ala-279, Lys-290 to Ile-296, Lys-320 to Glu-333, Val-517 to Ala-522.		L0581: 63, L0748: 35, H0575: 22, L0599: 19, H0046: 17, L0659: 17, L0745: 16, H0510: 15, L0662: 15, L0665: 15, L0747: 14, H0509: 12, L0744: 12, L0754: 12, H0069: 11, L0751: 11, H0574: 10, L0750: 10, H0031: 9, H0124: 9, L0757: 9, H0150: 8, H0039: 8, S0360: 7, S0132: 7, H0644: 7, S0027: 7, S0212: 6, H0393: 6, H0622: 6, H0591: 6, L0803: 6, L0806: 6, H0658: 6, S0044: 6, S0028: 6, S0358: 5, H0549: 5, H0331: 5, H0427: 5, H0251: 5, H0014: 5, H0687: 5, H0059: 5, L0595: 5, L0600: 5, H0632: 4, H0618: 4, H0200: 4, H0090: 4, H0038: 4, L0770: 4,	11q12-q13.1	106100, 133780, 147050, 259700, 259770, 600045, 601650, 601884

393

394

	S6028: 1, S0318: 1, S0316: 1, S0250: 1, H0328: 1, L0483: 1, T0006: 1, S0364: 1, S0366: 1, H0598: 1, H0616: 1, H0087: 1, H0264: 1, H0488: 1, T0004: 1, H0334: 1, H0625: 1, H0652: 1, S0002: 1, L0762: 1, L0640: 1, L0631: 1, L0769: 1, L0637: 1, L0667: 1, L0645: 1, L0764: 1, L0771: 1, L0773: 1, L0649: 1, L0651: 1, L0653: 1, L0658: 1, L0384: 1, L0545: 1, L0791: 1, S0428: 1, H0520: 1, H0593: 1, H0689: 1, H0659: 1, H0672: 1, S0328: 1, S0330: 1, S0378: 1, L0602: 1, H0518: 1, H0187: 1, S0118: 1, S3012: 1, S0390: 1, L0741: 1, L0742: 1, L0740: 1, L0752: 1, L0731: 1, H0595: 1, L0362: 1, H0668: 1, H0543: 1,	
--	--	--

HVBR10	1012618	471	3 - 1079	2646	Lys-52 to Ser-59, Lys-121 to Pro-128, Ser-183 to Thr-189.	H0422: 1, S0042: 1, H0008: 1 and H0352: 1, L0439: 13, L0748: 11, L0601: 8, L0747: 7, L0750: 7, L0438: 5, L0757: 5, L0770: 4, L0769: 4, L0764: 4, L0766: 4, L0731: 4, L0803: 3, L0775: 3, L0666: 3, H0521: 3, L0751: 3, L0758: 3, S0418: 2, H0550: 2, H0013: 2, H0052: 2, H0622: 2, H0494: 2, L0646: 2, L0771: 2, L0774: 2, L0663: 2, L0565: 2, H0593: 2, H0689: 2, H0672: 2, S0328: 2, L0752: 2, L0587: 2, L0600: 2, H0556: 1, H0583: 1, H0656: 1, H0341: 1, S0001: 1, S0360: 1, H0549: 1, H0455: 1, H0586: 1, H0587: 1, H0156: 1, H0253: 1, H0318: 1, H0581: 1, T0110: 1, H0150: 1, H0019: 1, H0050: 1, H0620: 1, S0050: 1,		
--------	---------	-----	----------	------	---	---	--	--

HVVBK78	1012645	472	44 - 643	2647	Arg-11 to Arg-20.	H0373: 1, H0355: 1, S6028: 1, H0271: 1, S0003: 1, H0252: 1, H0553: 1, H0644: 1, H0124: 1, S0036: 1, H0135: 1, H0616: 1, H0264: 1, H0056: 1, L0435: 1, S0344: 1, S0422: 1, S0002: 1, H0529: 1, L0763: 1, L0372: 1, L0773: 1, L0768: 1, L0794: 1, L0653: 1, L0776: 1, L0655: 1, L0659: 1, L0783: 1, L0792: 1, L0664: 1, L0665: 1, H0144: 1, S0126: 1, H0659: 1, H0658: 1, H0670: 1, S0330: 1, S3012: 1, S0027: 1, L0740: 1, L0754: 1, L0749: 1, L0779: 1, L0753: 1, L0755: 1, L0759: 1, L0592: 1, L0595: 1, H0543: 1, UNKWN: 1 and H0352: 1.		
HVVBK73	1012646	473	2 - 745	2648		H0672: 1 and S3014: 1. H0036: 1, H0644: 1, H0672: 1 and L0603: 1.	7q34-qter	

HCOMW35	1012652	474	3 - 527	2649	Asp-49 to Asp-59, Asp-110 to Ile-115, Trp-137 to Ser-144.	L0766: 10, S0358: 4, H0318: 3, L0809: 3, S0360: 2, H0617: 2, H0264: 2, L0769: 2, L0775: 2, H0670: 2, H0462: 1, H0646: 1, L0761: 1, L0764: 1, L0771: 1, L0773: 1, L0805: 1, L0787: 1, S0374: 1, H0684: 1, L0779: 1 and L0758: 1.	22q13.31	250100, 250800, 250800
HVVB28	1012654	475	2 - 1117	2650	Arg-1 to Gly-12, Gly-19 to Trp-25, Asp-31 to Gly-39, Gly-43 to Glu-52, Ala-63 to His-71, Asn-141 to Phe-152, Leu-200 to Leu-208.	L0803: 4, L0745: 4, L0758: 4, H0672: 3, S0007: 2, H0090: 2, L0769: 2, L0804: 2, L0774: 2, L0809: 2, L0439: 2, L0749: 2, L0731: 2, L0599: 2, L0362: 2, S0418: 1, S0360: 1, S0046: 1, H0431: 1, H0486: 1, H0013: 1, L0021: 1, H0042: 1, S0010: 1, H0052: 1, H0046: 1, H0024: 1, H0266: 1, H0687: 1, S0022: 1, H0553: 1, L0770: 1, L0794: 1, L0783: 1, L0529: 1, H0435: 1, S0152: 1, H0521: 1,	4q27-q28	107250, 134820, 134820, 134820, 134830, 134850, 134850, 147680, 181600, 189800, 266300, 600919

HVVBR45	1012657	476	102 - 1742	2651	Arg-23 to Thr-28, Val-58 to Leu-67, Pro-115 to Thr-122.	S0044: 1, H0555: 1, S0260: 1, L0366: 1, H0543: 1 and H0352: 1.	17q21.3	109270, 109270, 109270, 109270, 109270, 148065, 148080, 154275, 156490, 171190, 185800, 221820, 249000, 253250, 600119, 600119, 600525, 601844
						L0747: 15, L0740: 14, L0779: 13, L0439: 9, L0731: 9, L0748: 8, L0776: 7, L0455: 6, L0769: 6, L0744: 6, L0756: 6, L0758: 6, S0328: 5, H0521: 5, L0752: 5, H0295: 4, L0717: 4, L0663: 4, H0672: 4, S0360: 3, S0046: 3, H0427: 3, H0599: 3, H0036: 3, H0687: 3, S0250: 3, S0022: 3, S0036: 3, L0770: 3, L0662: 3, L0774: 3, L0806: 3, L0783: 3, S0052: 3, H0144: 3, S0126: 3, H0660: 3, H0539: 3, L0742: 3, S0194: 3, H0556: 2, T0049: 2, H0662: 2, S0045: 2, H0619: 2, L0622: 2, H0013: 2, H0318: 2, S0049: 2, H0356: 2, H0553: 2, S0364: 2, S0366: 2, H0551: 2,		

400

402

	H0591: 2, H0264: 2, S0438: 2, S0150: 2, S0144: 2, S0002: 2, S0426: 2, L0803: 2, L0657: 2, L0666: 2, L0664: 2, H0547: 2, S0126: 2, H0659: 2, H0648: 2, H0672: 2, H0710: 2, H0518: 2, S0152: 2, H0521: 2, L0439: 2, L0746: 2, L0750: 2, L0756: 2, L0731: 2, L0758: 2, S0434: 2, H0136: 2, L0600: 2, H0170: 1, H0171: 1, T0002: 1, S0134: 1, S0218: 1, H0650: 1, H0657: 1, H0341: 1, S0212: 1, S0282: 1, S0029: 1, H0125: 1, S0442: 1, S0354: 1, S0410: 1, H0619: 1, S6022: 1, H0391: 1, H0586: 1, H0497: 1, H0643: 1, H0486: 1, T0039: 1, T0040: 1, H0427: 1, H0098: 1, T0082: 1, H0706: 1, H0052: 1, H0596: 1, T0103: 1.
--	--

404

HVVAS32	1012668	478	105 - 2138	2653		H0542: 1, H0543: 1, S0424: 1, S0452: 1 and S0458: 1. L0439: 7, S0136: 5, L0438: 4, L0749: 4, L0777: 4, L0752: 4, S0010: 3, H0672: 3, S0116: 2, L0717: 2, H0013: 2, H0057: 2, H0068: 2, H0551: 2, S0002: 2, L0763: 2, L0662: 2, L0794: 2, L0766: 2, L0803: 2, L0805: 2, L0776: 2, L0547: 2, L0789: 2, L0666: 2, L0665: 2, H0670: 2, H0521: 2, H0555: 2, L0748: 2, L0751: 2, L0747: 2, L0731: 2, L0758: 2, L0759: 2, L0599: 2, H0170: 1, T0002: 1, S0040: 1, S0212: 1, S0358: 1, S0045: 1, S0046: 1, H0619: 1, H0393: 1, H0392: 1, H0409: 1, H0485: 1, H0486: 1, H0244: 1, H0427: 1, L0021: 1, S0346: 1, H0196: 1.	3q13	146200, 190300, 258900, 600882
---------	---------	-----	------------	------	--	---	------	---

406

407

408

Lys-107 to Phe-118, Asp-121 to Asn- 127, Cys-136 to Lys-142, Met-165 to Glu-177.	H0411: 6, L0517: 6, H0672: 6, L0747: 6, H0369: 5, L0663: 5, S0330: 5, L0758: 5, S0358: 4, H0674: 4, L0764: 4, L0776: 4, L0783: 4, L0740: 4, S0360: 3, H0645: 3, H0550: 3, H0616: 3, L0662: 3, L0775: 3, H0144: 3, H0684: 3, L0777: 3, L0590: 3, L0599: 3, S0026: 3, S0444: 2, H0489: 2, T0039: 2, H0575: 2, H0597: 2, H0545: 2, H0015: 2, H0031: 2, H0111: 2, H0032: 2, H0169: 2, H0038: 2, T0069: 2, S0440: 2, L0772: 2, L0363: 2, L0768: 2, L0804: 2, L0782: 2, L0384: 2, L0565: 2, S0126: 2, S0328: 2, S0013: 2, H0345: 2, L0743: 2, L0749: 2, L0756: 2, L0759: 2, S0260: 2, H0506: 2, H0624: 1, H0171: 1, S0342: 1,
--	--

410

HTAES83	1012693	481	200 - 2128	2656	Pro-55 to Asp-61, Gln-66 to Leu-72.	L0780: 1, S0031: 1 and S0412: 1. H0457: 7, H0521: 7, H0150: 5, H0585: 4, H0255: 3, H0546: 3, H0617: 3, S0002: 3, L0659: 3, H0522: 3, S0434: 3, H0650: 2, H0254: 2, S0442: 2, S0376: 2, H0250: 2, S0003: 2, H0039: 2, H0553: 2, L0771: 2, L0662: 2, L0766: 2, H0689: 2, H0682: 2, L0751: 2, H0657: 1, S0116: 1, H0402: 1, S0418: 1, S0358: 1, S0360: 1, S0132: 1, S6026: 1, L0717: 1, S0278: 1, H0549: 1, H0610: 1, H0257: 1, H0559: 1, H0069: 1, H0581: 1, H0544: 1, H0271: 1, H0687: 1, H0286: 1, S0314: 1, H0688: 1, T0023: 1, H0606: 1, H0163: 1, H0063: 1, H0264: 1, S0464: 1, S0440: 1, H0647: 1, S0344: 1,	11q13.4- q13.5	133780, 266150, 276903, 276903, 276903
---------	---------	-----	------------	------	--	---	-------------------	--

HOCMN67	1012700	482	1 - 1182	2657		H0695: 1, L0770: 1, L0638: 1, L0761: 1, L0667: 1, L0642: 1, L0643: 1, L0764: 1, L0651: 1, L0654: 1, L0783: 1, L0788: 1, L0789: 1, L0665: 1, S0052: 1, H0144: 1, H0703: 1, H0547: 1, H0593: 1, H0690: 1, H0658: 1, H0672: 1, S0378: 1, S0406: 1, H0555: 1, H0436: 1, S0027: 1, L0758: 1, H0707: 1, S0011: 1, H0542: 1 and H0423: 1. H0457: 9, H0695: 8, H0542: 7, H0521: 4, H0436: 4, H0581: 3, H0052: 3, H0135: 3, H0494: 3, H0650: 2, H0656: 2, S0356: 2, H0059: 2, H0641: 2, H0660: 2, L0741: 2, H0543: 2, H0265: 1, H0583: 1, H0255: 1, H0458: 1, S0360: 1, H0580: 1, S0278: 1, H0438: 1, H0492: 1, H0036: 1, H0590: 1,	11q13	102200, 106100, 131100, 131100, 131100, 133780, 147050, 153700, 161015, 164009, 168461, 168461, 168461, 180721,
---------	---------	-----	----------	------	--	---	-------	--

								H0618: 1, H0318: 1, H0544: 1, H0046: 1, H0123: 1, H0081: 1, T0010: 1, H0083: 1, H0271: 1, H0553: 1, H0163: 1, S0002: 1, S0052: 1, H0702: 1, H0703: 1, S0374: 1, H0520: 1, H0547: 1, H0690: 1, H0672: 1, H0539: 1, S0380: 1, S0406: 1, H0576: 1, H0445: 1, S0434: 1, L0601: 1, L0366: 1, H0422: 1 and H0506: 1.		180840, 191181, 193235, 209901, 232600, 259700, 259770, 600045, 600319, 600528, 601884
HAPOW35	1012711	483	92 - 619	2658	Ile-32 to Phe-42.			S0418: 2, S0328: 2, H0521: 2, H0733: 1, S0132: 1, H0575: 1, H0024: 1, H0135: 1, H0038: 1, S0038: 1, S0406: 1, L0439: 1 and H0543: 1.		
HOVJM48	1013085	484	2 - 454	2659				H0688: 2, L0766: 2, H0494: 1, L0652: 1, L0731: 1 and L0759: 1.		
HBJHY84	1013213	485	1524 - 208	2660	Gln-1 to Asp-24, Phe-40 to Gln-46.			L0766: 12, L0758: 8, S0422: 7, L0794: 6, H0622: 5, H0666: 5, L0754: 5, L0592: 5, H0040: 4, L0663: 4,		

414

									H0682: 1, H0659: 1, H0658: 1, H0648: 1, S0380: 1, H0521: 1, H0555: 1, H0576: 1, S0392: 1, L0745: 1, L0749: 1, L0779: 1, H0444: 1, L0608: 1, L0362: 1, H0542: 1, L0465: 1, S0424: 1 and S0462: 1.			
HODEY05	1013215	486	525 - 701	2661	Val-10 to Ser-18, Pro-30 to Glu-36, Glu-47 to Gly-54.				H0428: 2, S0114: 1, H0656: 1, H0263: 1, H0615: 1, H0684: 1 and L0749: 1.			
HFIAS44	1013288	487	112 - 1629	2662	Arg-31 to Leu-43, Gly-63 to Trp-78, Thr-84 to Pro-89, Asp-120 to Gly-141, Glu-155 to Val-177, Leu-204 to Ser-214, Pro-230 to Lys-236, Lys-300 to Lys-307, Arg-329 to Ile-340, Pro-343 to Ala-368, Glu-375 to Pro-434, Leu-441 to Lys-446, Lys-464 to Glu-495.			14				
HHAUD68	1013349	488	212 - 538	2663	Gly-1 to Pro-6, Pro-21 to Ser-44, Pro-51 to Lys-78,				L0740: 4, H0591: 3, H0583: 2, H0013: 2, H0575: 2, H0266: 2,	6p21.3	106300, 108800, 120290,	

HEEAA89	1013436	489	1.- 675	2664	Asp-80 to Ser-95, Leu-97 to Glu-103.	H0264: 2, L0805: 2, H0144: 2, S0330: 2, L0439: 2, H0445: 2, H0170: 1, H0556: 1, S0040: 1, S0218: 1, H0656: 1, H0125: 1, S0418: 1, S0376: 1, H0587: 1, H0497: 1, T0039: 1, H0069: 1, H0635: 1, H0599: 1, H0590: 1, H0318: 1, H0052: 1, H0596: 1, H0050: 1, S0003: 1, H0622: 1, H0090: 1, H0038: 1, H0634: 1, H0616: 1, H0551: 1, H0488: 1, S0016: 1, H0561: 1, S0002: 1, L0654: 1, L0518: 1, S0374: 1, S0126: 1, H0659: 1, H0660: 1, H0672: 1, H0651: 1, H0539: 1, H0521: 1, H0555: 1, L0750: 1, L0756: 1, L0757: 1, L0596: 1, L0590: 1, L0592: 1, S0026: 1, H0217: 1 and H0542: 1.	120290, 120810, 120820, 142857, 142858, 150270, 167250, 170261, 177900, 179450, 201910, 217000, 222100, 233100, 235200, 248611, 256550, 256550, 600202, 600261, 601868, 602280, 602475		
								15q13	103581, 146150.
					Trp-4 to Ser-11, Asn-17 to Arg-23.	L0748: 6, S0422: 4, H0658: 4, L0717: 3,			

417

418

HVVAW74	1013740	492	1066 - 575	2667	Ala-16 to His-30, Leu-106 to Gly-112, Asp-129 to Pro-137, Thr-144 to Leu-150.	S0260: 1, L0526: 11, L0622: 8, H0670: 8, H0087: 7, S0360: 5, H0594: 5, H0188: 5, H0412: 5, S0206: 5, H0218: 4, S0418: 4, H0318: 4, H0024: 4, H0617: 4, L0770: 4, L0783: 4, S0328: 4, S0027: 4, H0265: 3, H0663: 3, T0048: 3, H0597: 3, H0123: 3, H0673: 3, S0366: 3, H0135: 3, H0616: 3, S0002: 3, L0775: 3, L0776: 3, L0518: 3, L0663: 3, H0144: 3, S0374: 3, S0126: 3, S0380: 3, S3014: 3, H0352: 3, H0624: 2, H0556: 2, H0219: 2, S0114: 2, H0657: 2, H0341: 2, S0110: 2, H0661: 2, H0305: 2, H0351: 2, H0492: 2, T0039: 2, H0052: 2, H0546: 2, H0178: 2, H0083: 2, H0688: 2, H0068: 2, H0038: 2, H0040: 2,	I9pter-q12	
---------	---------	-----	------------	------	--	---	------------	--

	H0509: 2, S0142: 2, S0426: 2, L0769: 2, L0521: 2, L0768: 2, H0689: 2, L0750: 2, H0445: 2, H0170: 1, H0686: 1, H0344: 1, H0295: 1, H0294: 1, S0134: 1, S0218: 1, H0650: 1, L0760: 1, S0116: 1, S0001: 1, H0483: 1, H0255: 1, H0662: 1, H0402: 1, S0358: 1, S0376: 1, H0675: 1, H0580: 1, S0046: 1, S0132: 1, S0278: 1, H0549: 1, H0441: 1, H0370: 1, H0455: 1, H0333: 1, H0643: 1, L0623: 1, T0060: 1, H0250: 1, T0082: 1, S0010: 1, H0505: 1, H0421: 1, H0327: 1, H0545: 1, H0150: 1, H0086: 1, H0012: 1, H0099: 1, H0109: 1, H0290: 1, T0023: 1, H0031: 1, H0181: 1, H0606: 1, H0166: 1, H0674: 1, H0124: 1, H0163: 1,	
--	--	--

HSPSF84	1013853	493	645 - 205	2668	Ser-4 to Arg-9, Ala-97 to Asp-104.	H0063: 1, H0551: 1, H0413: 1, H0102: 1, H0560: 1, S0372: 1, H0130: 1, S0144: 1, S0344: 1, S0422: 1, L0598: 1, L0507: 1, L0639: 1, L0648: 1, L0662: 1, L0767: 1, L0524: 1, L0805: 1, L0659: 1, L0542: 1, L0809: 1, L0530: 1, L0789: 1, H0691: 1, H0520: 1, H0519: 1, H0682: 1, H0684: 1, H0659: 1, H0658: 1, H0648: 1, H0672: 1, S0378: 1, S0152: 1, S0174: 1, H0576: 1, L0612: 1, H0540: 1, L0748: 1, L0740: 1, L0752: 1, L0758: 1, S0436: 1, L0485: 1, L0599: 1, L0608: 1, L0595: 1, L0362: 1, L0366: 1, S0106: 1, H0543: 1, S0446: 1, L0600: 1 and H0008: 1.		
						S0358: 6, H0024: 3, H0696: 3, L0581: 3, H0123: 2, L0776: 2,		

									L0783: 2, H0658: 2, H0670: 2, H0648: 2, H0657: 1, S0116: 1, S0001: 1, H0661: 1, H0663: 1, H0450: 1, S6022: 1, H0438: 1, H0013: 1, S0280: 1, T0082: 1, H0421: 1, H0428: 1, T0067: 1, H0477: 1, S0038: 1, H0494: 1, L0762: 1, L0371: 1, L0800: 1, L0644: 1, L0773: 1, L0648: 1, L0662: 1, L0775: 1, L0375: 1, L0378: 1, L0806: 1, L0657: 1, L0666: 1, L0664: 1, H0682: 1, H0683: 1, S0378: 1, L0748: 1, L0751: 1, L0747: 1, L0753: 1, L0608: 1 and H0543: 1.				
HPAMV95	1014003	494	3 - 713	2669	Lys-70 to Tyr-79, Lys-97 to Asp-102, Ser-154 to Ser-160, Asn-162 to Cys-169, Lys-212 to Ser-217, Ala-225 to Glu-230.					17q25	114290, 138033, 162100, 170500, 170500, 170500, 180860, 264470		

423

							L0794: 2, L0803: 2, S0356: 1, H0318: 1, H0551: 1, L0662: 1, L0804: 1, H0658: 1, H0539: 1, L0786: 1, H0543: 1 and H0423: 1.			
HNHGJ66	1014252	497	2201 - 2467	2672	Lys-1 to Ser-8, Asn-32 to Asn-41, Gln-48 to Glu-53, Arg-73 to Ser-89.		AR061: 5, AR055: 3, AR096: 3, AR089: 2, AR033: 2, AR060: 2, AR104: 2, AR053: 1 S0038: 1 and S0053: 1.			
HDPN96	1014432	498	395 - 2434	2673	Met-8 to Lys-13, Met-46 to Lys-52, Leu-89 to Lys-95, Ala-100 to Val-109, Pro-131 to Ser-160, Arg-172 to Thr-178.		H0264: 1 and H0522: 1.	1q22	104770, 107670, 110700, 145001, 146790, 159440, 159440, 159440, 186780, 191030, 191315, 600923, 601412, 601652, 602491	
HPCTH41	1014485	499	165 - 890	2674	Ala-15 to Tyr-24, His-32 to Lys-48, Ala-60 to Gly-73, Ser-82 to Phe-88,		L0731: 10, L0758: 9, L0592: 8, L0770: 7, L0439: 7, L0754: 7, L0766: 5, L0764: 4,	11q25	602782	

Phe-105 to Phe-111, Phe-124 to Thr-138, Glu-211 to Val-217, Val-219 to Gln-224.	L0662: 4, L0659: 4, L0745: 4, L0655: 3, L0666: 3, L0663: 3, S0052: 3, L0748: 3, L0747: 3, L0750: 3, H0170: 2, S0360: 2, S0046: 2, H0013: 2, L0771: 2, L0768: 2, L0794: 2, L0803: 2, L0805: 2, L0664: 2, H0144: 2, L0565: 2, H0658: 2, H0710: 2, L0740: 2, L0749: 2, L0757: 2, L0608: 2, H0556: 1, H0686: 1, H0294: 1, S0114: 1, S0282: 1, S0029: 1, H0306: 1, L0005: 1, S0356: 1, S0300: 1, H0351: 1, H0369: 1, S0222: 1, H0587: 1, T0060: 1, H0250: 1, H0635: 1, H0156: 1, S0010: 1, H0052: 1, H0263: 1, H0596: 1, L0738: 1, H0545: 1, H0103: 1, S0051: 1, S0003: 1, S0214: 1, H0328: 1, L0143: 1, H0616: 1, H0412: 1,
--	--

426

Ala-474 to Gly-481, Ala-489 to Tyr-494, Pro-512 to Lys-517, Arg-623 to Thr-630, Lys-673 to Ser-678, Thr-703 to His-709, Arg-714 to Arg-720, Gly-755 to Glu-766.	H0543: 6, S0040: 5, S0003: 5, S0022: 5, S0214: 5, S0144: 5, S0037: 5, L0747: 5, L0777: 5, L0362: 5, S0026: 5, T0039: 4, H0318: 4, H0266: 4, H0560: 4, L0590: 4, L0599: 4, L0594: 4, S0011: 4, H0265: 3, H0657: 3, S0116: 3, H0663: 3, S0360: 3, S0045: 3, H0497: 3, H0559: 3, S0010: 3, H0052: 3, L0483: 3, H0090: 3, H0494: 3, L0766: 3, L0659: 3, L0666: 3, H0435: 3, L0602: 3, S012: 3, L0740: 3, L0750: 3, L0731: 3, L0759: 3, H0542: 3, S0212: 2, H0431: 2, H0024: 2, H0014: 2, H0083: 2, H0428: 2, H0628: 2, H0617: 2, H0634: 2, H0551: 2, L0065: 2, H0509: 2, S0150: 2, S0210: 2, H0529: 2, L0770: 2, L0768: 2.	601649
--	---	--------

428

HCOPQ33	1014730	501	3 - 380	2676	Ser-3 to Gln-34, Pro-43 to Ser-48, Pro-51 to Tyr-69, Asn-87 to Pro-92, Pro-107 to Val-119.	H0008: 1, S0360: 8, S0356: 6, L0769: 6, L0598: 4, L0666: 4, L0750: 4, L0779: 4, L0758: 4, H0013: 3, L0803: 3, L0517: 3, L0809: 3, S0222: 2, H0592: 2, L0471: 2, H0169: 2, L0761: 2, L0764: 2, L0771: 2, L0776: 2, L0783: 2, L0664: 2, H0144: 2, H0670: 2, S0380: 2, L0748: 2, L0747: 2, L0777: 2, S0026: 2, H0624: 1, H0171: 1, S0040: 1, S6024: 1, L0002: 1, H0663: 1, L0005: 1, S6026: 1, H0351: 1, H0455: 1, H0600: 1, T0040: 1, H0244: 1, S0010: 1, H0052: 1, L0738: 1, S0316: 1, H0328: 1, H0615: 1, H0388: 1, H0135: 1, T0067: 1, H0059: 1, H0560: 1, H0647: 1, L0763: 1, L0646: 1, L0773: 1, L0662: 1,		
---------	---------	-----	---------	------	--	--	--	--

								L0794: 1, L0805: 1, L0653: 1, L0659: 1, L0790: 1, H0682: 1, H0684: 1, H0672: 1, S0378: 1, S0152: 1, H0478: 1, S012: 1, S0028: 1, L0749: 1, L0757: 1, S0196: 1, H0008: 1, H0293: 1 and H0352: 1.			
HOEBR36	1014754	502	396 - 1061	2677				T0004: 2, L0372: 1, L0521: 1, L0806: 1, S0126: 1, H0435: 1 and L0731: 1.			
HLWDZ66	1014849	503	3 - 695	2678	Asp-24 to Val-36, Lys-38 to Glu-49, Pro-80 to Ser-90, Thr-131 to Gly-138.			AR096: 5, AR033: 4, AR089: 3, AR053: 3, AR052: 3, AR060: 3, AR039: 2, AR104: 1, AR055: 1, AR061: 1 L0803: 6, L0759: 6, L0666: 4, L0805: 3, L0756: 3, L0362: 3, S0442: 2, L0646: 2, L0794: 2, L0766: 2, L0659: 2, H0144: 2, L0438: 2, H0520: 2, L0779: 2, L0596: 2, H0423: 2, L0600: 2, H0170: 1, S0114: 1, H0650: 1, S0358: 1,			

HOER36	1014869	504	3051 - 2260	2679	Ala-32 to Ala-38, Pro-55 to Glu-72, Ala-83 to Glu-109, Glu-114 to Leu-121, Thr-135 to Lys-143, Leu-149 to Lys-166, Val-173 to Ser-178, Lys-185 to Gln-195, Pro-208 to Thr-214, Gln-243 to Arg-253, Lys-259 to Lys-264.	L0439: 13, L0766: 11, L0747: 11, L0740: 10, L0752: 9, L0776: 8, L0809: 7, L0777: 7, L0769: 6, L0803: 6, L0748: 6, L0759: 6, L0764: 5, H0659: 5, L0755: 5, L0761: 4, L0806: 4, L0438: 4, L0749: 4, L0779: 4, L0758: 4, H0083: 3, L0796: 3, L0662: 3,	6p23	125264, 600511, 601556
						S0444: 1, S0360: 1, H0329: 1, S0222: 1, H0497: 1, H0036: 1, S0474: 1, H0051: 1, H0687: 1, S0214: 1, H0615: 1, H0428: 1, H0622: 1, H0553: 1, H0598: 1, H0040: 1, H0634: 1, L0060: 1, T0041: 1, S0422: 1, L0773: 1, L0774: 1, L0657: 1, L0809: 1, L0789: 1, L0664: 1, S0126: 1, H0689: 1, H0435: 1, H0670: 1, L0748: 1, L0439: 1, L0731: 1, S0031: 1 and S0434: 1.		

					L0783: 3, L0663: 3, H0658: 3, L0743: 3, L0744: 3, L0751: 3, L0750: 3, L0731: 3, S0026: 3, S0134: 2, H0657: 2, S0010: 2, H0544: 2, S0051: 2, H0266: 2, S0003: 2, H0622: 2, L0763: 2, L0768: 2, L0804: 2, L0774: 2, L0775: 2, L0655: 2, L0545: 2, L0665: 2, H0547: 2, H0689: 2, S0380: 2, S3012: 2, S3014: 2, L0756: 2, H0595: 2, L0588: 2, L0605: 2, L0362: 2, L0601: 2, S0424: 2, H0624: 1, H0171: 1, H0556: 1, S0212: 1, H0664: 1, L0005: 1, S0354: 1, S0360: 1, S0410: 1, H0580: 1, S0046: 1, H0393: 1, H0411: 1, H0549: 1, H0370: 1, H0559: 1, H0427: 1, H0318: 1, S0474: 1, H0085: 1, T0115: 1, H0327: 1, H0545: 1,
--	--	--	--	--	--

434

435

436

HDPXP07	1015059	507	3 - 242	2682	Lys-1 to Trp-11, Asn-13 to Lys-30,	L0638: 1, L0641: 1, L0643: 1, L0764: 1, L0363: 1, L0649: 1, L0774: 1, L0775: 1, L0376: 1, L0805: 1, L0527: 1, L0657: 1, L0512: 1, L0783: 1, L0382: 1, L0787: 1, L0532: 1, S0216: 1, L0438: 1, H0520: 1, H0593: 1, H0690: 1, H0682: 1, H0683: 1, H0435: 1, H0670: 1, H0660: 1, H0666: 1, H0648: 1, S0380: 1, H0518: 1, H0696: 1, S0044: 1, S0146: 1, S0406: 1, S012: 1, S0027: 1, S0028: 1, L0746: 1, L0749: 1, L0779: 1, L0777: 1, L0731: 1, L0758: 1, S0031: 1, L0599: 1, L0608: 1, L0595: 1, H0668: 1, H0665: 1, S0276: 1, H0423: 1, S0424: 1, UNKWN: 1, L0600: 1 and H0008: 1.		
						L0766: 7, L0769: 4, L0747: 4, L0758: 4,		

HE2KH02	1015093	508	1 - 615	2683	Leu-33 to Thr-53.	H0251: 3, L0805: 3, S0007: 2, S0414: 2, H0644: 2, H0672: 2, S0026: 2, H0686: 1, H0713: 1, H0663: 1, S0376: 1, S0360: 1, S0046: 1, L0717: 1, H0574: 1, H0486: 1, H0427: 1, H0596: 1, L0040: 1, L0738: 1, H0046: 1, H0571: 1, L0471: 1, S0051: 1, H0510: 1, S0003: 1, S0214: 1, H0674: 1, H0708: 1, H0038: 1, H0412: 1, H0646: 1, S0002: 1, L0773: 1, L0662: 1, L0767: 1, L0794: 1, L0804: 1, L0806: 1, L0776: 1, L0606: 1, L0783: 1, L0792: 1, L0665: 1, H0660: 1, H0648: 1, H0521: 1, H0555: 1, L0743: 1, L0756: 1, L0777: 1, L0755: 1, L0759: 1, S0031: 1, L0362: 1, H0542: 1 and H0543: 1.			
									L0777: 11, L0438: 7.

[illegible]

								L0649: 1, L0804: 1, L0805: 1, L0789: 1, L0666: 1, L0663: 1, L0665: 1, H0144: 1, S0374: 1, H0520: 1, H0658: 1, H0666: 1, H0672: 1, S0380: 1, S0406: 1, L0754: 1, L0756: 1, L0758: 1, S0031: 1 and L0589: 1.			
HSPS160	1015133	509	2230 - 1901	2684	Gln-20 to Glu-27, Ser-43 to Ser-49, Ser-89 to Ala-95.			L0766: 5, L0438: 3, L0777: 3, H0090: 2, L0439: 2, L0731: 2, L0759: 2, S0114: 1, H0318: 1, L0471: 1, H0687: 1, H0509: 1, H0695: 1, L0803: 1, L0774: 1, L0775: 1, L0523: 1, L0806: 1, L0776: 1, L0809: 1, L0666: 1, H0690: 1, H0683: 1, H0659: 1, H0670: 1, L0749: 1 and L0779: 1.			
HOCOC26	1015143	510	97 - 693	2685	Pro-1 to Ser-9, Glu-48 to Gly-54, Gly-66 to Leu-71, Pro-78 to Glu-84, Ala-108 to Gln-116, Ile-167 to Asp-172,			L0748: 11, L0750: 5, L0740: 4, L0756: 4, L0758: 4, L0769: 3, L0766: 3, L0776: 3, L0779: 3, H0135: 2, L0763: 2, L0770: 2,			

441

442

HOPJU57	1015324	513	943 - 1164	2688	Gly-1 to Tyr-6, Lys-10 to Gly-19, Ser-46 to Lys-59.	and H0683: 1, H0585: 21, L0742: 12, L0747: 9, S0358: 8, H0052: 8, S0126: 8, H0141: 7, H0620: 7, L0748: 7, H0009: 6, H0624: 4, S0408: 4, H0427: 4, H0081: 4, S0051: 4, H0660: 4, L0750: 4, S0444: 3, H0393: 3, H0599: 3, H0618: 3, L0471: 3, H0083: 3, H0617: 3, H0708: 3, H0413: 3, H0494: 3, H0672: 3, L0740: 3, L0751: 3, L0755: 3, H0171: 2, H0294: 2, S0046: 2, H0455: 2, H0333: 2, H0156: 2, H0002: 2, H0097: 2, H0706: 2, S0049: 2, H0024: 2, H0373: 2, H0356: 2, S0364: 2, S0366: 2, H0135: 2, H0412: 2, S0440: 2, L0640: 2, L0766: 2, L0532: 2, L0754: 2, L0757: 2, S0031: 2, L0604: 2, H0506: 2, H0161: 1,		
---------	---------	-----	------------	------	---	--	--	--

444

HVCAC71	1015343	514	2 - 1204	2689	Pro-13 to Pro-23.	L0807: 1, H0593: 1, H0682: 1, H0684: 1, H0658: 1, H0670: 1, S0330: 1, H0522: 1, H0576: 1, L0612: 1, S3014: 1, S0027: 1, L0744: 1, L0745: 1, L0731: 1, H0445: 1 and S0434: 1. H0494: 6, H0046: 5, S0028: 5, H0519: 4, H0713: 3, H0547: 3, H0458: 2, H0574: 2, H0013: 2, H0551: 2, T0042: 2, L0438: 2, H0521: 2, S3014: 2, H0423: 2, H0506: 2, H0170: 1, H0171: 1, H0716: 1, S0134: 1, H0650: 1, H0656: 1, H0341: 1, S0212: 1, S0282: 1, H0449: 1, H0638: 1, S0418: 1, S0354: 1, S0358: 1, S0045: 1, S0132: 1, S0476: 1, S0280: 1, H0599: 1, H0575: 1, T0082: 1, H0036: 1, S0010: 1, H0581: 1, H0052: 1, H0251: 1,	4q21-q25	104500, 125490, 137600, 147790, 173910, 189800, 217030, 248510, 252500, 252500, 600919, 601542
---------	---------	-----	----------	------	-------------------	---	----------	---

HSXCO55	1015360	515	6 - 1076	2690	Val-9 to Gly-18, Pro-21 to Gly-27, Gly-81 to Trp-91, Lys-120 to Gly-126, Ile-166 to Pro-172, Val-185 to Ala-192,	H0596: 1, H0530: 1, H0544: 1, H0081: 1, H0050: 1, H0014: 1, H0373: 1, S0003: 1, S0022: 1, L0194: 1, H0213: 1, H0644: 1, S0364: 1, S0366: 1, H0040: 1, H0634: 1, T0067: 1, H0268: 1, H0623: 1, L0475: 1, H0561: 1, S0150: 1, H0646: 1, L0766: 1, H0702: 1, S0374: 1, H0520: 1, H0683: 1, H0435: 1, H0660: 1, H0666: 1, H0672: 1, S0380: 1, H0696: 1, S0027: 1, S0032: 1, L0740: 1, L0747: 1, S0434: 1, S0436: 1, L0597: 1, H0667: 1, S0194: 1, H0542: 1, H0543: 1, S0424: 1 and H0293: 1.		
					L0749: 14, L0439: 8, L0438: 6, L0748: 4, L0747: 4, L0779: 4, L0769: 3, S0442: 2, S0038: 2, L0764: 2, L0662: 2, L0766: 2.			

Asp-207 to Ser-212,	L0659: 2, L0809: 2,
Ser-241 to Lys-248,	L0666: 2, H0144: 2,
Trp-250 to Tyr-258,	H0658: 2, L0754: 2,
Gln-287 to Asn-292.	L0750: 2, L0756: 2,
	L0777: 2, L0780: 2,
	H0624: 1, H0170: 1,
	H0171: 1, H0556: 1,
	S0402: 1, S0282: 1,
	H0645: 1, L0717: 1,
	H0586: 1, L0586: 1,
	H0427: 1, S0010: 1,
	H0046: 1, H0457: 1,
	H0050: 1, L0471: 1,
	S0051: 1, T0010: 1,
	S6028: 1, H0688: 1,
	H0031: 1, H0169: 1,
	S0036: 1, H0135: 1,
	H0494: 1, H0560: 1,
	S0438: 1, H0207: 1,
	H0633: 1, H0647: 1,
	S0142: 1, S0422: 1,
	L0803: 1, L0804: 1,
	L0776: 1, L0655: 1,
	S0148: 1, H0547: 1,
	S0126: 1, H0683: 1,
	H0670: 1, H0672: 1,
	H0539: 1, L0744: 1,
	L0757: 1, L0758: 1,
	L0759: 1, L0593: 1,
	H0543: 1 and H0423: 1.

HLWDB78	1015430	516	57 - 629	2691	Lys-90 to Arg-96.	L0766: 4, L0748: 4, S0037: 2, L0749: 2, S0360: 1, H0571: 1, S0003: 1, H0553: 1, H0551: 1, S0142: 1, S0002: 1, L0794: 1, L0804: 1, H0519: 1, H0659: 1, H0660: 1, L0754: 1 and H0136: 1.			
HPCQU04	1015563	517	216 - 1232	2692		H0585: 26, H0141: 12, 4q21 H0623: 6, L0766: 6, H0013: 5, H0318: 5, H0556: 4, H0657: 4, H0457: 4, L0471: 4, L0776: 4, H0659: 4, S0360: 3, H0599: 3, S0010: 3, S0003: 3, H0634: 3, T0067: 3, H0538: 3, L0598: 3, L0770: 3, L0764: 3, H0144: 3, L0751: 3, L0747: 3, L0757: 3, L0758: 3, H0445: 3, H0542: 3, T0002: 2, S0418: 2, S0376: 2, S0132: 2, S0222: 2, H0497: 2, H0559: 2, H0620: 2, H0083: 2, H0428: 2, H0124: 2, H0068: 2, H0090: 2,	104500, 125490, 147790, 173910, 252500, 252500		

	H0412: 2, H0494: 2, H0561: 2, L0769: 2, L0372: 2, L0775: 2, L0375: 2, L0655: 2, L0517: 2, L0526: 2, H0520: 2, H0519: 2, S0126: 2, S0330: 2, H0521: 2, S0206: 2, L0743: 2, L0745: 2, L0752: 2, L0593: 2, L0595: 2, S0026: 2, H0543: 2, H0423: 2, H0265: 1, H0686: 1, S0342: 1, T0049: 1, S0134: 1, H0650: 1, S0116: 1, H0341: 1, H0661: 1, S0420: 1, S0356: 1, L0717: 1, S0278: 1, H0549: 1, H0550: 1, H0441: 1, H0442: 1, S0005: 1, L0623: 1, H0486: 1, T0114: 1, S0280: 1, H0575: 1, H0581: 1, H0052: 1, H0046: 1, H0123: 1, H0050: 1, H0012: 1, H0015: 1, H0239: 1, H0375: 1, S0022: 1, H0615: 1, H0030: 1, H0644: 1,					
--	--	--	--	--	--	--

450

HAOSL81	1015620	519	28 - 747	2694	Gln-167 to Gln-180, Leu-183 to Phe-195, Gln-211 to Gln-223, Gln-232 to Leu-244, Gln-253 to Ala-269, Pro-274 to Leu-292, Thr-302 to Thr-330, Asp-1 to Lys-6, Gln-29 to Gly-35, Pro-39 to Arg-49, Pro-51 to Trp-58, Ser-78 to Gly-83, Ser-179 to His-194.	H0124: 11, L0751: 5, L0747: 4, H0295: 3, H0620: 3, L0794: 3, L0741: 3, L0758: 3, H0686: 2, H0549: 2, H0617: 2, L0768: 2, L0766: 2, L0774: 2, L0745: 2, L0731: 2, H0656: 1, S0420: 1, S0444: 1, S0360: 1, S0408: 1, S0222: 1, H0486: 1, H0013: 1, L0021: 1, H0052: 1, H0327: 1, H0009: 1, T0010: 1, H0033: 1, H0604: 1, H0031: 1, H0068: 1, H0038: 1, H0100: 1, H0509: 1, L0769: 1, L0761: 1, L0804: 1, L0775: 1, L0636: 1, L0809: 1, L0792: 1, L4501: 1, L0665: 1, L0438: 1,		
---------	---------	-----	----------	------	---	--	--	--

452

HNOAG06	1016272	522	316 - 546	2697	Pro-8 to Asn-22, Thr-31 to Ser-36.	H0318: 1, H0052: 1, H0251: 1, H0123: 1, H0050: 1, H0012: 1, S0051: 1, H0179: 1, H0615: 1, T0006: 1, H0673: 1, H0135: 1, H0087: 1, H0264: 1, H0100: 1, L0763: 1, L5565: 1, L0667: 1, L0772: 1, L0644: 1, L0768: 1, L0775: 1, L0805: 1, L0655: 1, L0659: 1, L0526: 1, L0663: 1, S0052: 1, H0682: 1, H0660: 1, L0602: 1, L0743: 1, L0750: 1, L0756: 1, L0779: 1, L0777: 1, L0592: 1, H0136: 1 and S0424: 1.	1q21.1	104770, 107670, 110700, 145001, 146790, 191315, 601412, 601652, 601863, 602491
---------	---------	-----	-----------	------	---------------------------------------	---	--------	---

454

455

					Asp-48 to Asp-55, Ser-104 to Glu-199, Pro-202 to Trp-233, Gly-236 to Ala-247, Phe-256 to Ser-263, Glu-273 to Asp-281.	S0358: 3, H0046: 3, H0424: 3, L0748: 3, H0265: 2, H0556: 2, H0661: 2, S0420: 2, H0052: 2, H0135: 2, H0090: 2, H0433: 2, L0752: 2, L0758: 2, H0422: 2, H0657: 1, H0484: 1, H0483: 1, H0638: 1, S0360: 1, S0132: 1, H0645: 1, H0550: 1, H0391: 1, T0039: 1, H0250: 1, S0010: 1, H0009: 1, H0123: 1, H0081: 1, S0051: 1, H0428: 1, H0040: 1, S0038: 1, S0144: 1, H0547: 1, H0593: 1, H0683: 1, H0670: 1, H0518: 1, H0134: 1, S0037: 1, S3014: 1, S0027: 1, S0032: 1, L0744: 1, L0740: 1, L0746: 1, L0731: 1, H0445: 1, L0596: 1, S0011: 1 and H0542: 1.		
HE2FR37	1016939	526	109 - 729	2701	Gly-1 to Met-15, Met-60 to Gln-67, Val-76 to Gly-82,	AR060: 2, AR089: 2, AR055: 1, AR061: 1, AR096: 1, AR104: 0,		

					Leu-117 to Arg-123.	AR053: 0, AR033: 0, AR039: 0 H0328: 2, H0124: 2, L0766: 2, H0171: 1, L0005: 1, S0360: 1, H0329: 1, H0156: 1, H0615: 1, H0477: 1, S0440: 1, L0598: 1, H0547: 1, S0126: 1, S0168: 1 and H0595: 1.			
HBJHU33	1017051	527	1 - 618	2702	Met-34 to Gly-50, Asp-69 to Trp-90, Asp-99 to Lys-107, Val-164 to Thr-170.				
HCOQZ88	1017227	528	3 - 1196	2703	His-1 to Arg-12.	L0748: 38, L0747: 30, L0759: 7, S0360: 5, L0664: 5, L0779: 5, H0486: 4, S0010: 4, L0758: 4, S0222: 3, L0455: 3, S0386: 3, L0764: 3, L0771: 3, L0775: 3, L0438: 3, S0028: 3, L0749: 3, H0580: 2, H0208: 2, H0013: 2, S0280: 2, H0575: 2, H0251: 2, H0024: 2, S0214: 2, H0428: 2, H0622: 2, H0031: 2, H0644: 2, L0646: 2, L0800: 2,	6q23	107470, 107470, 107470, 121014, 142470, 156225, 164200, 164200, 207800, 601316, 601410, 601757, 602067	

L0773: 2, L0662: 2, L0794: 2, L0804: 2, H0521: 2, L0752: 2, S0026: 2, H0583: 1, H0459: 1, S0418: 1, S0356: 1, H0675: 1, S0045: 1, H0619: 1, H0441: 1, T0039: 1, T0109: 1, H0581: 1, H0263: 1, H0596: 1, H0232: 1, H0327: 1, L0471: 1, H0057: 1, H0375: 1, H0266: 1, S0003: 1, H0688: 1, H0553: 1, H0376: 1, H0163: 1, H0090: 1, H0591: 1, H0616: 1, S0370: 1, S0382: 1, H0529: 1, L0770: 1, L0769: 1, L0638: 1, L0761: 1, L0772: 1, L0642: 1, L0767: 1, L0768: 1, L0364: 1, L0766: 1, L0606: 1, L0659: 1, L0809: 1, L0663: 1, H0144: 1, L0565: 1, L0352: 1, S0126: 1, H0682: 1, H0659: 1, H0670: 1, H0672: 1, L0602: 1,	
--	--

							H0518: 1, S0146: 1, S3014: 1, L0439: 1, L0745: 1, L0750: 1, L0777: 1, L0755: 1, L0731: 1, H0595: 1, L0596: 1, H0543: 1 and H0352: 1.			
HNTSV21	1017374	529	673 - 1008	2704	Asn-41 to Lys-46, Pro-73 to Lys-92.		L0599: 2, H0265: 1, S0114: 1, S0116: 1, H0486: 1, H0031: 1, H0090: 1, H0616: 1, H0547: 1, H0670: 1, L0743: 1, L0744: 1, L0747: 1 and L0592: 1.	1		
HNORH33	1017461	530	255 - 2063	2705			S0358: 11, L0777: 9, H0046: 8, L0439: 6, L0759: 6, L0438: 5, L0662: 4, L0794: 4, L0766: 4, S0114: 3, L0803: 3, L0789: 3, H0144: 3, S0126: 3, L0748: 3, S0011: 3, S0196: 3, H0686: 2, H0250: 2, H0024: 2, H0031: 2, H0628: 2, H0056: 2, L0667: 2, L0805: 2, L0659: 2, L0809: 2, L0663: 2, L0665: 2, S0328: 2, H0521: 2, S3014: 2,			

460

S0194: 14, L0748: 13, L0662: 12, H0553: 9, L0663: 9, L0664: 8, H0547: 8, H0658: 8, H0506: 8, L0500: 7, L0659: 7, H0486: 6, L0526: 6, H0659: 6, H0672: 6, S0406: 6, S0434: 6, H0318: 5, H0428: 5, H0412: 5, L0653: 5, L0657: 5, L0517: 5, H0519: 5, H0170: 4, H0685: 4, H0657: 4, S0358: 4, H0083: 4, H0031: 4, H0551: 4, S0440: 4, L0770: 4, S0374: 4, S0328: 4, H0696: 4, H0445: 4, L0596: 4, L0608: 4, H0542: 4, H0624: 3, H0686: 3, S6024: 3, S0356: 3, S0354: 3, S0408: 3, H0581: 3, H0046: 3, H0510: 3, H0328: 3, H0644: 3, H0038: 3, T0067: 3, S0450: 3, L0598: 3, L0520: 3, L0646: 3, L0521: 3, L0768: 3, L0375: 3,	142410, 142410, 142410, 160781, 181405.
---	---

462

463

464

HISBM03	I017772	533	748 - 924	2708	Pro-2 to Leu-8, Phe-12 to Arg-20, Thr-32 to Lys-38.	L0776: 2, L0666: 2, L0665: 2, L0758: 2, L0759: 2, H0392: 1, H0581: 1, L0471: 1, H0083: 1, H0687: 1, S0003: 1, L0769: 1, L0639: 1, L0648: 1, L0375: 1, L0657: 1, L0659: 1, L0518: 1, H0659: 1 and L0777: 1.		
						L0766: 25, L0439: 20, L0438: 16, L0758: 11, L0747: 9, L0731: 9, L0794: 8, L0805: 8, L0748: 8, L0752: 7, L0759: 7, H0038: 6, L0769: 6, L0809: 6, L0750: 6, L0777: 6, L0757: 6, L0592: 6, L0770: 5, L0803: 5, L0749: 5, L0593: 5, H0581: 4, L0774: 4, L0776: 4, H0435: 4, H0521: 4, L0740: 4, L0754: 4, H0305: 3, S0418: 3, H0013: 3, H0318: 3, S0003: 3, H0616: 3, H0412: 3, H0413: 3, S0422: 3, L0800: 3, L0771: 3.		

	S0358: 1, S0408: 1, H0580: 1, H0733: 1, S0132: 1, H0619: 1, S0278: 1, H0261: 1, H0600: 1, H0642: 1, H0632: 1, H0559: 1, H0486: 1, H0156: 1, H0274: 1, H0196: 1, H0596: 1, H0327: 1, H0530: 1, H0046: 1, H0123: 1, H0050: 1, H0012: 1, H0049: 1, H0024: 1, H0014: 1, H0015: 1, S0051: 1, T0010: 1, H0083: 1, H0594: 1, H0615: 1, H0688: 1, H0031: 1, L0142: 1, H0111: 1, H0032: 1, H0212: 1, T0067: 1, H0433: 1, H0100: 1, T0042: 1, L0475: 1, S0438: 1, S0142: 1, S0208: 1, S0002: 1, L0369: 1, L0763: 1, L0667: 1, L0646: 1, L0764: 1, L0773: 1, L0768: 1, L0650: 1, L0656: 1, L0659: 1, L0783: 1, L0367: 1, L0787: 1,	
--	--	--

HOFAA79	1017801	534	2 - 559	2709	Ala-15 to Asp-26, Phe-108 to Trp-113, Glu-167 to Tyr-175.	L0790: 1, L0792: 1, L0663: 1, H0144: 1, L0352: 1, H0547: 1, S0126: 1, H0658: 1, H0670: 1, H0696: 1, H0134: 1, S0406: 1, H0626: 1, S3012: 1, S0390: 1, L0786: 1, H0595: 1, S0434: 1, L0599: 1, H0653: 1, H0667: 1, S0192: 1, H0542: 1, H0543: 1, H0422: 1, S0042: 1 and S0424: 1.			
						AR089: 17, AR039: 16, AR096: 16, AR053: 16, AR052: 13, AR033: 12, AR060: 11, AR055: 8, AR104: 7, AR061: 6 H0415: 1 and H0414: 1.	11		
HPRAJ96	1017825	535	587 - 429	2710		L0740: 21, L0748: 14, L0731: 10, L0747: 9, L0752: 9, L0757: 7, H0674: 6, L0750: 6, S0358: 5, L0768: 5, L0809: 5, H0648: 5, L0779: 5, H0318: 4, L0766: 4, L0776: 4,	1p36.1		116600, 120550, 120570, 120575, 130500, 133200, 171760, 171760,

470

HBXFX71	1018032	536	1 - 123	2711	Pro-1 to Ser-6, Pro-9 to Pro-16, Pro-34 to Leu-41.	L0588: 1, L0591: 1, L0593: 1, S0026: 1 and S0384: 1. H0549: 5, L0769: 5, L0157: 4, L0742: 3, S0010: 2, H0620: 2, S0051: 2, H0617: 2, H0483: 1, H0661: 1, S0420: 1, S0045: 1, H0411: 1, H0550: 1, H0370: 1, H0438: 1, H0434: 1, H0545: 1, H0615: 1, S0112: 1, H0494: 1, L0770: 1, L0364: 1, L0783: 1, L0809: 1, L0666: 1, H0547: 1, H0682: 1, H0672: 1, L0779: 1, L0758: 1 and L0592: 1.		
HMVDD81	1018080	537	14 - 745	2712	Arg-8 to Gly-17, Gly-29 to Pro-45, Arg-62 to Leu-84, Gln-87 to Leu-96, Gln-103 to Val-114, Gln-141 to Cys-153, Ile-162 to Gln-180, Arg-186 to Lys-211, Asn-219 to Asn- 228.	H0694: 92, L0747: 14, L0766: 13, L0764: 7, S0126: 7, L0439: 7, L0758: 7, L0759: 7, H0657: 6, H0656: 6, S0358: 6, H0266: 6, L0763: 6, L0776: 6, L0655: 6, L0659: 6, L0666: 6, L0748: 6, L0777: 6, L0752: 6, H0445: 6, H0486: 5,		

472

	H0032: 2, S0440: 2, H0646: 2, L0667: 2, L0646: 2, L0774: 2, L0652: 2, L0518: 2, L0438: 2, H0682: 2, H0660: 2, H0539: 2, S0380: 2, H0518: 2, H0696: 2, S0044: 2, S0406: 2, H0555: 2, H0436: 2, L0744: 2, L0751: 2, L0757: 2, L0592: 2, L0608: 2, L0593: 2, H0653: 2, S0194: 2, S0276: 2, H0543: 2, H0423: 2, S0424: 2, L0411: 1, H0624: 1, H0170: 1, H0556: 1, H0220: 1, H0686: 1, H0685: 1, S0114: 1, T0049: 1, H0583: 1, H0650: 1, H0254: 1, H0255: 1, S0356: 1, S0442: 1, S0354: 1, S0408: 1, H0722: 1, S0132: 1, H0619: 1, H0437: 1, S6022: 1, S0222: 1, H0431: 1, H0592: 1, H0586: 1, H0333: 1, H0349: 1, L0105: 1.
--	--

T0048: 1, H0581: 1, H0421: 1, H0374: 1, H0204: 1, H0046: 1, H0123: 1, H0081: 1, H0050: 1, L0471: 1, H0023: 1, H0355: 1, H0687: 1, S0250: 1, H0688: 1, H0029: 1, H0039: 1, L0483: 1, T0006: 1, H0553: 1, L0055: 1, H0169: 1, H0124: 1, H0068: 1, H0316: 1, H0591: 1, H0616: 1, H0264: 1, H0268: 1, H0412: 1, H0413: 1, H0056: 1, H0059: 1, T0042: 1, S0016: 1, H0561: 1, S0438: 1, H0509: 1, S0150: 1, H0641: 1, S0142: 1, S0344: 1, S0002: 1, S0426: 1, L0371: 1, L0761: 1, L0644: 1, L0771: 1, L0521: 1, L0794: 1, L0389: 1, L0533: 1, L0803: 1, L0804: 1, L0806: 1, L0661: 1, L0629: 1, L0782: 1, L0367: 1, L0789: 1,	
--	--

HVVDH50	1018226	538	2344 - 1004	2713	Pro-18 to Ser-40, Pro-81 to Pro-95, Pro-111 to Phe-118, Gly-127 to Ala-132, Pro-143 to Phe-151, Pro-164 to Pro-174, Pro-180 to Lys-187, Met-205 to Phe-211, Phe-228 to Pro-236, Pro-245 to Pro-255, Ala-263 to His-270, Gln-272 to Gln-280, Asn-296 to Ala-304, Gly-333 to Gly-344,	L0793: 1, L0664: 1, H0520: 1, H0519: 1, H0593: 1, H0689: 1, H0672: 1, H0651: 1, S0378: 1, S0152: 1, S0350: 1, H0522: 1, S0013: 1, H0704: 1, H0576: 1, S0390: 1, S0027: 1, L0756: 1, L0779: 1, L0780: 1, L0755: 1, H0595: 1, L0596: 1, L0588: 1, L0589: 1, L0366: 1, S0011: 1, S0026: 1, H0665: 1, L0600: 1, H0008: 1 and H0352: 1.	L0751: 17, L0731: 11, S0344: 9, S0126: 9, L0743: 9, L0595: 9, S0046: 8, S0002: 8, H0521: 8, L0744: 8, S0278: 7, S0037: 7, L0750: 7, S0420: 6, H0618: 6, H0024: 6, H0188: 6, H0622: 6, S014: 6, L0439: 6, H0550: 5, H0620: 5, H0551: 5, H0623: 5, L0659: 5, H0255: 4, S0418: 4, H0052: 4,	7q32	180105, 190900, 222800, 246900
---------	---------	-----	----------------	------	--	---	---	------	---

476

477

	H0123: 1, H0050: 1, L0471: 1, H0012: 1, H0023: 1, S0051: 1, H0071: 1, H0083: 1, H0416: 1, H0288: 1, H0292: 1, T0006: 1, H0644: 1, H0181: 1, S0364: 1, H0068: 1, H0135: 1, H0038: 1, H0040: 1, H0634: 1, H0063: 1, H0087: 1, H0077: 1, H0269: 1, H0412: 1, T0004: 1, S0038: 1, H0100: 1, L0065: 1, H0647: 1, L0369: 1, L0640: 1, L0763: 1, L0667: 1, L0648: 1, L0363: 1, L0767: 1, L0768: 1, L0649: 1, L0774: 1, L0376: 1, L0378: 1, L0654: 1, L0776: 1, L0655: 1, L0657: 1, L0634: 1, L0783: 1, L0382: 1, L0532: 1, L0666: 1, L0665: 1, S0052: 1, H0699: 1, H0693: 1, L0438: 1, H0593: 1, H0683: 1, H0672: 1, S0328: 1,	
--	--	--

							S0330: 1, H0518: 1, H0696: 1, S0406: 1, H0555: 1, S0432: 1, S0118: 1, S3012: 1, S0390: 1, S0206: 1, L0740: 1, L0757: 1, S0031: 1, S0434: 1, L0596: 1, S0194: 1, S0424: 1, H0506: 1 and H0008: 1.			
HNNBT57	1018243	539	377 - 3	2714	Pro-9 to Ala-24, Thr-52 to Gly-61, Thr-64 to Ser-70.	H0677: 7				
HCONJ11	1018459	540	1937 - 1125	2715	His-11 to Ala-17, Pro-29 to Ser-35, Asn-59 to Asp-64, Lys-67 to Leu-72, Gln-101 to Asp-110, Pro-157 to Lys-176, Gln-181 to Lys-210, Gln-213 to Lys-228, Pro-253 to Asn-264.	H0581: 3, H0615: 3, L0766: 3, L0777: 3, H0657: 2, H0486: 2, H0013: 2, H0641: 2, L0803: 2, S0011: 2, H0543: 2, H0423: 2, H0556: 1, H0341: 1, S0420: 1, S0356: 1, H0580: 1, H0586: 1, H0575: 1, S0049: 1, H0263: 1, H0545: 1, H0150: 1, H0041: 1, H0009: 1, L0471: 1, H0014: 1, S0051: 1, S0003: 1, H0328: 1, H0622: 1, H0032: 1, H0674: 1, H0038: 1,	10q23	174900, 236730, 601493		

							H0616: 1, H0551: 1, T0041: 1, S0440: 1, S0422: 1, L0598: 1, H0529: 1, L0520: 1, L0640: 1, L0770: 1, L0794: 1, L0774: 1, L0776: 1, L0655: 1, L0540: 1, L0789: 1, L0792: 1, L0663: 1, L0665: 1, S0374: 1, H0520: 1, H0547: 1, H0689: 1, H0659: 1, H0670: 1, H0666: 1, S0380: 1, H0696: 1, L0742: 1, L0439: 1, L0754: 1, L0590: 1, L0599: 1, H0542: 1, L0718: 1 and L0600: 1.			
HCQAW68	1018501	541	1652 - 1212	2716	Asn-19 to Ile-26, Val-44 to Lys-54, Arg-70 to Val-83, Arg-95 to Thr-100, Arg-136 to Arg-141.	L0748: 4, L0777: 4, L0756: 2, H0263: 1, H0046: 1, H0023: 1, H0188: 1, L0761: 1, L0662: 1, L0526: 1, L0790: 1, L0747: 1 and L0758: 1.				
HVVCY25	1018772	542	1170 - 355	2717	Ser-7 to Trp-12, Pro-28 to Gly-58, Lys-212 to Cys-218, Glu-229 to Gly-235.	H0547: 10, H0542: 10, H0266: 9, L0794: 7, S0358: 6, H0559: 6, L0803: 6, L0666: 6, L0601: 6, H0013: 5,	19p13.3- p13.2	108725, 120700, 133171, 136836, 143890,		

H0556: 4, H0550: 4, H0581: 4, H0551: 4, H0494: 4, H0529: 4, L0766: 4, H0519: 4, H0521: 4, H0265: 3, S0360: 3, H0333: 3, H0318: 3, H0150: 3, H0083: 3, H0038: 3, H0538: 3, L0653: 3, H0520: 3, L0602: 3, L0747: 3, L0752: 3, L0591: 3, S0026: 3, H0422: 3, H0170: 2, S0040: 2, H0657: 2, H0341: 2, S0444: 2, H0619: 2, L0717: 2, S0222: 2, H0592: 2, H0250: 2, H0427: 2, S0280: 2, H0156: 2, H0575: 2, S0010: 2, H0544: 2, H0457: 2, H0087: 2, H0100: 2, L0598: 2, L0648: 2, L0649: 2, L0805: 2, L0776: 2, L0659: 2, L0517: 2, L0526: 2, L0809: 2, L0663: 2, L0664: 2, S0374: 2, H0435: 2, H0658: 2, H0672: 2, H0539: 2,	145981, 147141, 147670, 147670, 147670, 151440, 164953, 188070, 231670, 600276, 600957, 601238, 601843, 601846, 602216, 602477
--	---

482

HCOMB65	1018802	543	233 - 1249	2718			H0068: 1, H0090: 1, H0591: 1, H0063: 1, H0412: 1, H0396: 1, H0561: 1, S0372: 1, H0509: 1, S0422: 1, L0770: 1, L0637: 1, L0667: 1, L0646: 1, L0800: 1, L0641: 1, L0764: 1, L0773: 1, L0662: 1, L0363: 1, L0768: 1, L0387: 1, L0804: 1, L0378: 1, L0806: 1, L0655: 1, L0657: 1, L0636: 1, S0216: 1, H0698: 1, L0438: 1, H0593: 1, H0670: 1, H0660: 1, H0648: 1, H0651: 1, S0328: 1, S0378: 1, H0518: 1, H0704: 1, H0134: 1, H0478: 1, S3014: 1, S0028: 1, L0748: 1, L0755: 1, L0592: 1, S0011: 1, H0665: 1, H0667: 1 and S0242: 1.	22q13.1	103050, 103050, 124030, 124030,

138981,
182380,
188826,
190040,
190040,
190040

485

486

								S0037: 1, S3014: 1, L0750: 1, L0780: 1, S0260: 1, L0591: 1, S0011: 1, S0026: 1, H0653: 1, H0667: 1, H0136: 1, H0216: 1, S0192: 1, S0276: 1 and H0677: 1.			
HVVCF30	1018907	544	50 - 319	2719	Pro-13 to Ala-20, Pro-53 to Ser-61.						
HODBV21	1018943	545	1186 - 476	2720				H0328: 2			
HCHMD81	1019326	546	1 - 1005	2721	Ala-4 to Ala-11.			L0758: 9, L0770: 7, H0620: 6, L0731: 6, L0747: 5, L0777: 5, H0265: 4, L0771: 4, L0748: 4, L0759: 4, L0769: 3, L0662: 3, L0774: 3, L0526: 3, L0439: 3, L0751: 3, L0750: 3, S0358: 2, H0424: 2, S0144: 2, L0520: 2, L0764: 2, L0364: 2, L0776: 2, L0809: 2, L0664: 2, L0754: 2, S0436: 2, L0588: 2, L0601: 2, H0556: 1, H0685: 1, S0040: 1, S6024: 1, H0341: 1, H0484: 1, H0661: 1, H0306: 1.			

488

HAZAR95	1019338	547	11 - 1192	2722	Arg-63 to Arg-77, Glu-186 to Trp-192, Ile-222 to Tyr-228, Lys-284 to Glu-293, Asn-324 to Ser-329, Pro-375 to Lys-388.	L0666: 13, L0665: 13, L0588: 12, L0601: 9, S0358: 8, L0664: 8, S0360: 7, L0471: 7, L0657: 7, L0659: 7, L0748: 7, H0415: 6, S0214: 6, L0520: 6, L0372: 6, L0803: 6, L0375: 6, L0655: 6, H0659: 6, L0608: 6, L0362: 6, L0361: 6, S0376: 5, L0663: 5, L0439: 5, T0049: 4, H0581: 4, L0646: 4, L0804: 4, L0809: 4, S0328: 4, L0747: 4, L0749: 4, L0755: 4, L0731: 4, L0591: 4, L0604: 4, L0595: 4, H0542: 4, H0662: 3, H0545: 3, H0687: 3, H0100: 3, H0509: 3, H0529: 3, L0763: 3, L0764: 3, L0662: 3, L0794: 3, S0330: 3, L0740: 3, H0445: 3, L0600: 3, H0265: 2, H0661: 2, S0418: 2, H0156: 2, H0318: 2, H0172: 2, H0620: 2,	12q23	124200, 147440, 160781, 235800, 600175
---------	---------	-----	-----------	------	--	---	-------	--

T0060: 1, H0427: 1, H0599: 1, H0004: 1, S0346: 1, H0196: 1, H0052: 1, H0263: 1, H0544: 1, T0003: 1, H0083: 1, H0629: 1, S6028: 1, H0188: 1, S0003: 1, H0428: 1, H0039: 1, H0030: 1, H0553: 1, H0165: 1, H0169: 1, S0036: 1, H0135: 1, H0551: 1, H0264: 1, H0412: 1, T0069: 1, L0475: 1, S0370: 1, L0065: 1, S0438: 1, H0647: 1, H0649: 1, S0422: 1, S0426: 1, L0762: 1, L0371: 1, L0770: 1, L0769: 1, L0638: 1, L0761: 1, L0641: 1, L0642: 1, L0773: 1, L0521: 1, L0387: 1, L0766: 1, L0649: 1, L0774: 1, L0807: 1, L0517: 1, L0540: 1, L0526: 1, L0384: 1, L0382: 1, L0530: 1, L0647: 1, L0787: 1, L0532: 1, S0374: 1,
--

492

								H0030: 1, H0674: 1, H0647: 1, L0763: 1, L0646: 1, L0374: 1, L0662: 1, L0768: 1, L0774: 1, L0663: 1, L0438: 1, H0520: 1, H0658: 1, S0328: 1, H0478: 1, L0745: 1, L0758: 1, H0445: 1 and L0599: 1.			
HE8SD82	1019585	549	1 - 570	2724	Asn-1 to Pro-7, Gln-33 to Ser-40, Pro-54 to Thr-63, Leu-82 to Arg-106, Gly-109 to Asn-119, Gln-145 to Val-150, Lys-161 to Gln-168, Arg-170 to Phe-175, Thr-177 to Tyr-184.			H0031: 4, S0007: 2, H0244: 2, S0010: 2, H0194: 2, H0553: 2, S0036: 2, H0040: 2, H0529: 2, L0005: 1, S0356: 1, H0676: 1, H0411: 1, S0222: 1, S6014: 1, H0587: 1, H0497: 1, H0013: 1, H0575: 1, H0327: 1, L0471: 1, H0024: 1, L0143: 1, H0038: 1, H0494: 1, H0538: 1, H0660: 1, H0539: 1, H0521: 1, H0555: 1 and H0136: 1.			
HSPSN08	1019608	550	77 - 1120	2725	Pro-25 to Glu-54, Ser-66 to Glu-71, Gly-86 to Trp-92, Arg-104 to Asn-109.			H0683: 11, H0617: 3, L0766: 2, H0686: 1, H0254: 1, H0255: 1, L0021: 1, H0123: 1,			

							Asn-133 to Asn-138, Thr-153 to Ser-160, Asn-269 to Glu-277, Leu-290 to Tyr-297.	H0012: 1, S0051: 1, H0083: 1, H0039: 1, T0006: 1, H0413: 1, L0794: 1, L0809: 1, L0748: 1 and S0026: 1.		
HVCAH24	1019749	551	97 - 468	2726			Arg-1 to Arg-8, Gly-30 to Gln-40, Phe-50 to Asp-58, Leu-97 to Ser-112.	H0156: 2, H0624: 1, H0171: 1, H0686: 1, H0656: 1, H0574: 1, H0486: 1, S0316: 1, H0622: 1, H0038: 1, S0150: 1, H0520: 1, H0547: 1, H0658: 1, H0666: 1, H0521: 1 and S0028: 1.		
HCEBF54	1019777	552	400 - 840	2727			Pro-89 to Leu-101.	AR104: 2, AR061: 1, AR089: 1, AR033: 0, AR060: 0, AR096: 0, AR053: 0, AR039: 0, AR055: 0, AR052: 0 L0794: 2, L0803: 2, L0655: 2, L0665: 2, H0684: 2, L0754: 2, L0747: 2, H0686: 1, L0470: 1, H0662: 1, H0125: 1, S0360: 1, L0021: 1, H0052: 1, H0085: 1, H0597: 1, H0009: 1, S0362: 1, H0644: 1, H0673: 1, L0060: 1, H0560: 1,		

495

496

497

498

499

Ala-88 to Cys-93, Ala-108 to Ser-139, Ser-145 to Ser-151, Asp-154 to Ala-164, Pro-168 to Thr-189, Pro-196 to Ser-203, Pro-229 to Ala-235, Thr-255 to Glu-261, Pro-271 to Pro-276, Pro-289 to Asn-310, Pro-318 to Tyr-329, Arg-334 to Arg-345, Arg-347 to Thr-356, Lys-373 to Arg-391, Glu-396 to Pro-414.	H0618: 3, H0253: 3, H0545: 3, L0662: 3, H0689: 3, L0748: 3, L0777: 3, L0758: 3, L0785: 2, H0692: 2, H0662: 2, H0550: 2, S0049: 2, L0770: 2, L0764: 2, L0659: 2, H0670: 2, L0779: 2, L0757: 2, L0759: 2, S0434: 2, H0225: 1, S0218: 1, H0650: 1, H0656: 1, L0426: 1, S0212: 1, S0442: 1, H0489: 1, H0580: 1, S0046: 1, S0132: 1, S0476: 1, H0549: 1, H0587: 1, H0333: 1, H0559: 1, H0427: 1, L0021: 1, H0599: 1, H0274: 1, H0581: 1, H0421: 1, H0052: 1, H0231: 1, L0157: 1, H0566: 1, H0123: 1, T0010: 1, H0408: 1, H0355: 1, H0266: 1, H0271: 1, H0687: 1, H0163: 1, H0087: 1, H0494: 1, H0359: 1, S0344: 1, L0371: 1.
---	--

HPDRZ03	1020130	557	122 - 751	2732	Asp-7 to Ala-15, Pro-34 to Ile-60, Gln-110 to Asn-117.	L0637: 1, L0761: 1, L0646: 1, L0773: 1, L0363: 1, L0774: 1, L0375: 1, L0805: 1, L0658: 1, L0384: 1, L0543: 1, L0666: 1, L0663: 1, H0547: 1, H0593: 1, H0684: 1, H0660: 1, S0380: 1, H0710: 1, S0152: 1, H0521: 1, H0696: 1, H0134: 1, S0406: 1, H0436: 1, S0432: 1, L0744: 1, L0740: 1, S0436: 1, L0593: 1, H0665: 1 and H0422: 1, L0777: 4, S0358: 3, H0486: 3, L0750: 3, L0779: 3, L0752: 3, S0412: 3, S0134: 2, H0013: 2, L0766: 2, L0803: 2, H0519: 2, H0658: 2, L0599: 2, L0604: 2, S0192: 2, T0002: 1, S0342: 1, S0212: 1, H0661: 1, H0619: 1, H0411: 1, H0632: 1, T0114: 1, H0575: 1, H0318: 1, T0110: 1, H0544: 1.		
---------	---------	-----	-----------	------	--	---	--	--

502

503

							L0375: 1, L0651: 1, L0784: 1, L0806: 1, L0509: 1, L0655: 1, L0657: 1, L0513: 1, L0809: 1, L0545: 1, L0790: 1, L0791: 1, L0792: 1, L0664: 1, H0144: 1, H0519: 1, S0126: 1, S0404: 1, H0555: 1, L0751: 1, L0777: 1, S0436: 1 and L0592: 1.			
HWHGO25	1020841	560	3 - 113	2735	Gly-7 to Leu-15, Pro-17 to His-29.		L0747: 5, L0805: 3, L0761: 2, L0803: 2, L0775: 2, H0658: 2, L0758: 2, S0298: 1, H0586: 1, H0597: 1, L0646: 1, L0776: 1, L0518: 1, L0519: 1, L0528: 1, L0529: 1, L0790: 1, L0666: 1, H0690: 1, H0521: 1, L0749: 1 and L0777: 1.			
HWMNE31	1020852	561	157 - 681	2736	Thr-15 to Trp-23, Ala-44 to Gln-51, Lys-62 to Arg-70, Asp-102 to Lys-114, Val-116 to Ala-148, Phe-151 to Glu-163.		L0803: 13, L0766: 10, L0731: 8, L0751: 6, L0601: 6, L0756: 5, L0764: 4, L0789: 4, S0136: 4, H0436: 4, L0777: 4, L0596: 4, H0556: 3, H0580: 3,			

505

506

	L0743: 9, H0370: 8, S0442: 7, S0126: 7, S0436: 7, S0420: 6, L0766: 6, H0670: 6, H0672: 6, L0744: 6, L0779: 6, S0434: 6, H0661: 5, S0476: 5, H0617: 5, H0660: 5, S0027: 5, L0747: 5, L0592: 5, S0040: 4, H0716: 4, H0662: 4, S0140: 4, H0545: 4, H0150: 4, S0440: 4, H0641: 4, H0689: 4, H0682: 4, H0684: 4, S0380: 4, S0406: 4, S3014: 4, S0356: 3, H0729: 3, H0733: 3, S0007: 3, H0639: 3, H0123: 3, H0424: 3, S0366: 3, H0087: 3, H0647: 3, L0769: 3, L0775: 3, H0690: 3, H0696: 3, S3012: 3, L0740: 3, H0543: 3, L0600: 3, H0713: 2, H0663: 2, S0376: 2, S0444: 2, S0408: 2, S0046: 2, H0619: 2, S0300: 2, S0278: 2,				
--	--	--	--	--	--

508

509

					Ser-44 to Gln-53.	H0519: 2, L0756: 2, L0780: 2, H0369: 1, S0222: 1, S0346: 1, H0050: 1, H0428: 1, L0194: 1, L0455: 1, H0494: 1, L0769: 1, L0806: 1, L0807: 1, L0664: 1, H0520: 1, L0747: 1, L0779: 1, L0759: 1, S0031: 1 and L0592: 1.		
HCOPC09	1021208	564	620 - 378	2739	Glu-49 to Asn-62.	L0764: 3, S0360: 2, H0331: 2, H0575: 2, L0769: 2, H0670: 2, L0747: 2, L0777: 2, L0601: 2, S0358: 1, H0455: 1, H0492: 1, L0021: 1, L0763: 1, L0662: 1, L0803: 1, L0774: 1, L0775: 1, L0809: 1, H0683: 1, H0522: 1, L0743: 1, L0362: 1 and H0422: 1.		
HVVB22	1021323	565	811 - 2	2740	Pro-5 to Lys-15, Asn-31 to Ala-38, Asp-57 to Arg-64, Ala-75 to Asp-90, Gln-98 to Gly-123, Arg-125 to Gly-142, Met-155 to Gly-160, H0656: 1, H0341: 1,	H0424: 5, L0766: 3, S0222: 2, S0214: 2, S0422: 2, S0126: 2, S0330: 2, L0759: 2, L0362: 2, L0361: 2, H0653: 2, H0220: 1,		

					Leu-162 to Pro-182, Arg-187 to Met-192, Ser-199 to Asp-219, Pro-224 to Pro-253.	H0449: 1, S0376: 1, S0045: 1, H0351: 1, H0587: 1, H0497: 1, S0010: 1, L0471: 1, H0373: 1, H0083: 1, H0266: 1, L0055: 1, H0163: 1, H0591: 1, H0551: 1, H0366: 1, H0509: 1, H0538: 1, L0770: 1, L0772: 1, L0381: 1, L0775: 1, L0653: 1, L0518: 1, L0665: 1, H0144: 1, H0520: 1, H0547: 1, H0689: 1, H0672: 1, S0328: 1, H0539: 1, H0696: 1, L0747: 1, L0752: 1, L0591: 1, L0592: 1, H0216: 1 and S0396: 1.		
HAMFW66	1021327	566	8 - 988	2741	His-3 to Phe-9, Asn-176 to Thr-184, Glu-217 to Lys-225, Lys-263 to Asp-268.	AR053: 3, AR052: 3, AR096: 2, AR033: 2, AR089: 2, AR055: 2, AR104: 1, AR060: 1, AR061: 0, AR039: 0 L0754: 12, S0410: 10, L0766: 9, L0591: 7, L0748: 4, L0752: 4, H0423: 4, H0556: 3, S0360: 3, L0646: 3,		

512

								L0792: 1, L0793: 1, H0519: 1, H0682: 1, H0648: 1, S0330: 1, S0152: 1, S0406: 1, L0750: 1, L0779: 1, L0757: 1, L0759: 1, L0480: 1, H0542: 1 and H0506: 1.			
HPMBW86	1021661	567	3 - 179	2742	Leu-2 to Gly-15, Val-31 to Gly-40, Gly-45 to Ala-51.			H0341: 1, S0222: 1, H0156: 1, H0052: 1, H0031: 1, L0766: 1, H0658: 1, H0670: 1 and L0612: 1.			
HOFMK02	1021666	568	138 - 230	2743	Thr-24 to Leu-29.			H0415: 2 and H0486: 1.	11p15	108985, 186921, 602092	
HOUHK71	1021682	569	311 - 370	2744	Arg-11 to Trp-20.			L0755: 4, H0638: 2, S0342: 1, H0101: 1, H0457: 1, H0051: 1, L0768: 1, L0803: 1, L0650: 1, L0806: 1, L0518: 1, H0689: 1, H0648: 1, L0756: 1 and L0759: 1.			
HCOOW23	1021759	570	54 - 800	2745	Thr-10 to Arg-16, Arg-21 to Ser-31, Asn-97 to Arg-102, Ile-170 to Ser-175, Thr-207 to Gly-213.						
HACMT02	1021794	571	272 - 3	2746				H0685: 2			

HISDS67	1022018	572	2322 - 1756	2747	Gln-4 to Ala-17, Ala-56 to Gln-61, Cys-166 to Ala-182.	L0754: 8, H0553: 4, L0770: 4, L0794: 4, H0615: 3, L0769: 3, L0803: 3, L0439: 3, L0777: 3, L0752: 3, H0052: 2, L0637: 2, L0768: 2, L0805: 2, L0659: 2, L0666: 2, L0664: 2, H0547: 2, H0593: 2, H0682: 2, H0539: 2, H0521: 2, L0744: 2, L0757: 2, L0604: 2, L0601: 2, H0624: 1, H0657: 1, H0656: 1, S0212: 1, H0254: 1, H0662: 1, L0005: 1, S0045: 1, H0619: 1, H0550: 1, H0592: 1, H0013: 1, H0036: 1, H0618: 1, H0620: 1, H0023: 1, S0051: 1, H0188: 1, H0028: 1, H0428: 1, T0006: 1, H0213: 1, L0455: 1, H0135: 1, H0038: 1, H0616: 1, H0264: 1, H0413: 1, T0069: 1, S0038: 1, H0100: 1, L0763: 1, L0638: 1, L5565: 1,		
---------	---------	-----	----------------	------	--	--	--	--

HOVAA59	1022037	573	2892 - 1309	2748	Pro-1 to Gly-10, Pro-20 to Gly-34, Pro-36 to Gly-45, Ala-51 to Pro-65, Val-78 to Arg-83, Gln-89 to Gly-98, Lys-114 to Val-119, Arg-158 to Ala-164, Thr-306 to Lys-313.	L0761: 1, L0667: 1, L0804: 1, L0650: 1, L0375: 1, L0776: 1, L0807: 1, L0809: 1, L0519: 1, L0663: 1, L0665: 1, H0520: 1, S0126: 1, H0684: 1, H0435: 1, H0659: 1, H0648: 1, S0190: 1, S0404: 1, H0555: 1, L0741: 1, L0751: 1, L0747: 1, L0753: 1 and L0758: 1.		
						L0601: 4, H0617: 3, L0794: 2, L0629: 2, L0657: 2, L0604: 2, T0049: 1, S0218: 1, L0785: 1, S0442: 1, H0733: 1, H0411: 1, T0109: 1, H0428: 1, H0673: 1, S0366: 1, H0040: 1, H0616: 1, L0763: 1, L0375: 1, L0805: 1, L0658: 1, H0593: 1, H0658: 1, H0672: 1, L0743: 1, L0744: 1, L0748: 1, L0740: 1, L0751: 1, L0754: 1, L0750: 1, L0596: 1, L0485: 1 and		

HOCPL72	1022059	574	2 - 1099	2749	Pro-1 to Glu-14, Pro-26 to Val-33, Tyr-167 to Tyr-174, Pro-188 to Ser-196.	H0721: 1, L0766: 3, H0457: 2, H0706: 1, H0015: 1, H0373: 1, H0266: 1, H0553: 1, H0551: 1, H0509: 1, L0761: 1, L0665: 1, H0144: 1, H0689: 1, H0660: 1 and S0328: 1.		
HCOMM05	1022082	575	1 - 840	2750	Gln-19 to Asp-38, Pro-46 to Thr-55, Leu-96 to Gly-104, Ala-114 to Ala-119, Gln-125 to Trp-131, Pro-133 to Pro-141, Phe-144 to Glu-150, Glu-180 to Val-185, Glu-192 to Glu-197, Glu-254 to Leu-262, Met-272 to Ser-280.	AR089: 1, AR096: 1, AR061: 1, AR060: 1, AR033: 1, AR055: 0, AR052: 0, AR039: 0, AR104: 0 L0508: 9, H0620: 7, L0774: 6, L0509: 6, S0408: 5, L0750: 5, L0601: 5, L0515: 4, L0512: 4, H0594: 3, L0805: 3, L0514: 3, L0511: 3, H0670: 3, L0755: 3, H0556: 2, H0686: 2, S0358: 2, S0444: 2, H0199: 2, H0181: 2, H0617: 2, H0494: 2, L0505: 2, L0502: 2, L0769: 2, L0803: 2, L0809: 2, L0528: 2, L0663: 2, L0752: 2, H0657: 1,		

HLYDC86	1022162	576	3 - 947	2751	Pro-39 to Arg-45, Arg-52 to Ile-60, Glu-87 to Cys-96, Thr-108 to Ser-114, Thr-121 to Glu-128,	H0255: 1, S0420: 1, S0442: 1, S0360: 1, H0549: 1, H0586: 1, L0021: 1, H0036: 1, H0052: 1, H0597: 1, H0086: 1, H0012: 1, S0336: 1, H0606: 1, H0124: 1, L0504: 1, L0763: 1, L0627: 1, L0373: 1, L0764: 1, L0499: 1, L0498: 1, L0497: 1, L0376: 1, L0653: 1, L0493: 1, L0510: 1, L0513: 1, L0384: 1, L0789: 1, L0666: 1, L0665: 1, H0689: 1, H0660: 1, H0672: 1, S0328: 1, S0330: 1, S0454: 1, S0406: 1, S0432: 1, L0754: 1, L0747: 1, L0749: 1, L0779: 1, L0777: 1, L0731: 1, L0759: 1, S0434: 1 and H0506: 1.	14q24.3	104311, 109150, 182600, 245200, 601208
---------	---------	-----	---------	------	---	--	---------	--

						Met-133 to Thr-141, Asn-154 to Ala-169, Glu-174 to His-179, Gln-205 to Gln-213, Pro-222 to Phe-231, Ser-259 to Phe-265, Leu-282 to Ser-288.	L0747: 1.			
HTLEP21	1022167	577	92 - 457	2752			H0253: 1 and L0767: 1.			
HVCAS77	1022313	578	170 - 1072	2753		Glu-7 to Leu-18, Glu-75 to Arg-80, Gln-152 to Gln-157, Gln-202 to Lys-219, Ser-259 to Gly-266, Glu-277 to His-287.	L0766: 7, L0769: 6, S0418: 4, L0747: 4, S0424: 3, H0341: 2, S0278: 2, L0471: 2, H0083: 2, H0538: 2, L0770: 2, L0771: 2, L0775: 2, L0809: 2, H0520: 2, L0744: 2, L0754: 2, L0777: 2, L0759: 2, L0597: 2, S0026: 2, H0667: 2, H0171: 1, H0686: 1, S0212: 1, H0125: 1, S0420: 1, S0358: 1, S0376: 1, S0360: 1, S0046: 1, H0393: 1, H0333: 1, H0575: 1, H0581: 1, H0309: 1, H0046: 1, H0567: 1, H0188: 1, H0428: 1, H0553: 1, H0135: 1,			

HOGCA79	1022627	579	210 - 635	2754	Thr-69 to Phe-77, Asp-80 to Thr-85.	H0040: 1, T0041: 1, L0369: 1, L0763: 1, L0643: 1, L0764: 1, L0773: 1, L0804: 1, L0375: 1, L0806: 1, L0776: 1, L0655: 1, L0783: 1, L0382: 1, L0666: 1, H0144: 1, H0593: 1, H0435: 1, H0659: 1, H0660: 1, H0666: 1, L0750: 1, L0755: 1, L0731: 1, L0757: 1 and H0543: 1.		
						H0547: 5, L0747: 4, L0766: 3, H0328: 2, H0551: 2, L0774: 2, H0435: 2, H0659: 2, H0436: 2, L0740: 2, L0754: 2, L0759: 2, L0596: 2, H0657: 1, H0341: 1, S0418: 1, S0360: 1, S0007: 1, H0229: 1, H0486: 1, H0013: 1, H0156: 1, H0037: 1, L0055: 1, L0455: 1, H0163: 1, H0616: 1, L0060: 1, H0560: 1, H0529: 1, L0763: 1, L0770: 1, L0764: 1, L0767: 1,		

520

HAZAA64	1022719	581	106 - 705	2756	Asn-58 to Thr-64, Ile-72 to Ser-78, Gly-119 to Lys-128, Thr-185 to Leu-200.	H0670: 1, H0660: 1, S0406: 1, S3014: 1, L0756: 1, L0758: 1, L0759: 1, L0595: 1, S0011: 1 and H0712: 1. H0695: 414, H0580: 44, L0777: 6, L0731: 6, H0052: 5, L0766: 5, L0747: 5, H0617: 4, H0494: 4, S0045: 3, H0083: 3, H0181: 3, H0038: 3, L0637: 3, L0779: 3, L0758: 3, H0484: 2, H0599: 2, S0049: 2, H0428: 2, L0774: 2, L0775: 2, L0518: 2, L0439: 2, L0750: 2, L0596: 2, L0588: 2, L0599: 2, L0601: 2, H0265: 1, H0556: 1, T0002: 1, S0040: 1, H0294: 1, H0341: 1, H0254: 1, H0255: 1, S0420: 1, S0444: 1, S0360: 1, H0208: 1, H0492: 1, L0623: 1, H0013: 1, S0280: 1, H0156: 1, L0021: 1, S0010: 1, H0194: 1, H0046: 1.			
---------	---------	-----	-----------	------	--	--	--	--	--

522

523

	H0484: 1, H0483: 1, H0254: 1, H0661: 1, H0663: 1, H0402: 1, S0356: 1, S0354: 1, S0358: 1, S0376: 1, H0722: 1, S0468: 1, S0007: 1, S0045: 1, S0278: 1, S0222: 1, H0370: 1, H0613: 1, H0600: 1, T0039: 1, T0040: 1, T0112: 1, H0013: 1, H0253: 1, H0318: 1, H0235: 1, H0327: 1, H0530: 1, H0081: 1, L0471: 1, H0197: 1, H0246: 1, S0050: 1, H0373: 1, H0275: 1, H0083: 1, H0266: 1, T0006: 1, H0033: 1, H0604: 1, H0553: 1, H0617: 1, H0376: 1, S0036: 1, H0135: 1, H0090: 1, H0038: 1, H0634: 1, H0087: 1, H0059: 1, H0100: 1, H0494: 1, S0464: 1, S0142: 1, S0210: 1, L0762: 1, L0761: 1, L0764: 1, L0771: 1, L0773: 1,	
--	--	--

HDPYE27	1022911	583	380 - 1066	2758	Trp-1 to Ser-8, His-11 to Asn-16, Gln-19 to Pro-25, Gly-38 to Gly-44, Leu-54 to Arg-62, Ser-70 to Asp-78, Gln-83 to Ser-88, Thr-99 to Asn-105, Ser-123 to Val-135, Pro-143 to Arg-169, His-194 to Tyr-206.	L0521: 1, L0626: 1, L0767: 1, L0649: 1, L0774: 1, L0375: 1, L0806: 1, L0807: 1, L0517: 1, L0529: 1, L0665: 1, H0520: 1, S0126: 1, H0690: 1, H0709: 1, S0152: 1, S0044: 1, S0404: 1, H0555: 1, S0027: 1, S0028: 1, S0032: 1, H0444: 1, L0596: 1, L0605: 1, S0276: 1, H0542: 1, H0543: 1 and H0352: 1.	9q13-q21	190100, 200150, 229300, 229300, 600429, 600884, 600974, 600998, 602014
---------	---------	-----	------------	------	--	--	----------	--

526

527

528

HCRQL51	1022997	584	47 - 1030	2759			L0480: 1, L0362: 1, S0106: 1, S0192: 1, S0242: 1, H0542: 1, H0423: 1, S0424: 1 and S0446: 1.	7q32	180105, 190900, 222800, 246900
						Ser-35 to Gly-40, Ser-103 to His-109, Tyr-151 to Gly-159, Pro-216 to Glu-224, Asn-249 to Trp-258, Pro-278 to Glu-284.	H0013: 10, H0644: 6, H0144: 6, H0615: 5, L0748: 4, L0777: 4, H0393: 3, T0114: 3, H0012: 3, H0024: 3, H0529: 3, L0438: 3, H0547: 3, L0439: 3, H0624: 2, H0170: 2, H0341: 2, L0005: 2, H0370: 2, H0050: 2, L0471: 2, H0031: 2, H0038: 2, L0750: 2, L0758: 2, H0595: 2, L0592: 2, H0171: 1, S0212: 1, S0418: 1, S0356: 1, H0619: 1, L0717: 1, S0222: 1, H0427: 1, H0036: 1, H0046: 1, H0620: 1, H0594: 1, H0266: 1, H0328: 1, L0142: 1, H0591: 1, H0616: 1, H0059: 1, H0625: 1, S0210: 1, L0768: 1, H0520: 1, H0519: 1,		

								H0672: 1, S0152: 1, H0555: 1, L0742: 1, L0779: 1, H0445: 1, S0194: 1, H0422: 1 and L0698: 1.			
HDTCC55	1023046	585	195 - 533	2760	Ser-26 to Ser-32.			H0486: 1 and L0766: 1.			
HOOJQ91	1023049	586	1307 - 525	2761	Ala-2 to Thr-9.						
HCE4K28	1023227	587	238 - 840	2762	Phe-15 to Gly-29.			L0750: 6, L0766: 5, L0809: 4, L0747: 4, L0758: 4, S0354: 3, H0617: 3, L0775: 3, L0783: 3, H0690: 3, S0406: 3, L0753: 3, L0601: 3, H0255: 2, S0007: 2, H0618: 2, H0253: 2, H0309: 2, H0150: 2, H0428: 2, H0553: 2, H0494: 2, L0770: 2, L0771: 2, L0803: 2, L0774: 2, L0666: 2, S0330: 2, H0539: 2, H0134: 2, L0777: 2, L0592: 2, H0624: 1, H0686: 1, H0664: 1, S0408: 1, H0489: 1, H0580: 1, H0351: 1, S0278: 1, H0333: 1, H0559: 1, S0474: 1, H0052: 1,			

HPD VY62	1023264	588	2 - 1126	2763			H0545: 1, T0003: 1, H0124: 1, H0634: 1, H0087: 1, H0477: 1, H0412: 1, L0763: 1, L0769: 1, L0761: 1, L0767: 1, L0804: 1, L0806: 1, L0805: 1, L0659: 1, L0787: 1, L0791: 1, H0547: 1, S0126: 1, H0658: 1, H0670: 1, S0328: 1, S0380: 1, H0521: 1, H0522: 1, L0742: 1, L0744: 1, L0748: 1, L0779: 1, L0731: 1, L0759: 1, L0589: 1, L0581: 1, H0665: 1, S0276: 1 and H0352: 1.	10q26.13-q26.3	263700
							H0624: 2, H0586: 2, H0031: 2, L0748: 2, L0439: 2, H0171: 1, S0356: 1, S0376: 1, H0052: 1, H0251: 1, H0050: 1, H0014: 1, H0051: 1, H0647: 1, L0789: 1, H0144: 1, H0658: 1, H0521: 1, L0754: 1, L0752: 1, S0436: 1, S0276: 1 and S0424: 1		

HLHDK42	1023339	589	1 - 351	2764	Asn-19 to Asp-29, Leu-34 to Gly-41.	H0024: 2 and H0596: 1.		
HLDRQ55	1023375	590	2 - 421	2765		H0081: 1, H0510: 1 and H0144: 1.		
HVVBIO6	1023414	591	1449 - 646	2766		H0543: 7, H0341: 6, S0003: 5, L0740: 5, L0747: 5, H0619: 4, H0575: 4, H0318: 4, S0206: 4, L0750: 4, L0588: 4, H0542: 4, H0265: 3, S0358: 3, S0046: 3, H0486: 3, H0069: 3, S0022: 3, L0666: 3, H0556: 2, S0116: 2, S0212: 2, S0418: 2, S0376: 2, S0360: 2, S0132: 2, H0497: 2, L0471: 2, H0090: 2, H0551: 2, H0494: 2, H0633: 2, S0144: 2, H0529: 2, L0662: 2, L0655: 2, L0664: 2, H0144: 2, H0547: 2, S0152: 2, L0757: 2, H0445: 2, H0624: 1, S6024: 1, S0114: 1, S0134: 1, S0218: 1, H0650: 1, H0657: 1, H0656: 1, H0663: 1, H0662: 1,	X	

533

534

HPDOP74	1023531	593	1659 - 307	2768	Leu-23 to Asp-31, Gln-46 to Ile-69, Ile-120 to Lys-128, Pro-148 to Asp-154, Pro-216 to Val-223, Asn-261 to Ala-273, Gly-290 to Gln-299, Lys-305 to Tyr-312, Gln-341 to Ala-346, Pro-394 to Met-404, Ser-418 to Ser-440, Glu-442 to Gly-450.	H0542: 1, H0543: 1 and H0506: 1. L0591: 11, H0069: 9, H0494: 9, L0588: 7, H0543: 7, H0657: 6, H0318: 6, T0042: 6, H0547: 6, H0556: 5, L0665: 5, L0751: 5, H0423: 5, T0002: 4, H0050: 4, L0747: 4, L0779: 4, H0341: 3, H0638: 3, H0580: 3, H0393: 3, H0052: 3, H0266: 3, H0617: 3, H0616: 3, H0413: 3, H0521: 3, L0754: 3, L0596: 3, L0362: 3, H0422: 3, H0265: 2, L0470: 2, H0305: 2, H0637: 2, S0045: 2, H0370: 2, T0109: 2, H0156: 2, H0599: 2, H0575: 2, H0036: 2, H0618: 2, H0253: 2, L0483: 2, H0181: 2, H0038: 2, H0561: 2, H0646: 2, L0770: 2, L0769: 2, L0646: 2, L0521: 2, L0662: 2, L0768: 2, L0803: 2,		
---------	---------	-----	------------	------	--	--	--	--

536

537

HMSOH12	1023545	594	1 - 1077	2769	Lys-25 to Asp-31, His-46 to Glu-54, Ser-80 to Lys-86, Val-109 to Lys-115, Arg-143 to Met-149, Lys-193 to Arg-198, His-253 to Gly-259.	H0707: 1, L0592: 1, H0653: 1, H0665: 1, S0276: 1 and S0424: 1. L0731: 12, L0439: 10, L0747: 8, L0770: 7, L0662: 6, L0775: 5, L0663: 5, H0423: 5, L0769: 4, L0752: 4, H0422: 4, H0657: 3, H0656: 3, S0356: 3, S0360: 3, S0222: 3, H0318: 3, H0083: 3, L0764: 3, L0768: 3, L0766: 3, L0809: 3, L0665: 3, H0547: 3, H0682: 3, H0659: 3, H0672: 3, L0750: 3, L0588: 3, L0591: 3, S0007: 2, H0581: 2, H0644: 2, H0412: 2, S0002: 2, S0426: 2, L0648: 2, L0364: 2, L0774: 2, L0375: 2, L0655: 2, L0666: 2, L0664: 2, H0520: 2, H0435: 2, H0666: 2, H0651: 2, H0521: 2, S0027: 2, L0740: 2, L0755: 2, L0757: 2, L0758: 2, H0542: 2,		
---------	---------	-----	----------	------	---	---	--	--

	H0171: 1, H0556: 1, H0686: 1, S0430: 1, H0650: 1, H0341: 1, S0212: 1, S0418: 1, L0717: 1, H0411: 1, H0610: 1, H0415: 1, H0486: 1, H0427: 1, H0599: 1, S0010: 1, S0346: 1, H0596: 1, H0046: 1, H0050: 1, H0012: 1, H0014: 1, H0051: 1, H0355: 1, H0266: 1, S0250: 1, L0483: 1, T0006: 1, L0055: 1, H0040: 1, H0413: 1, S0472: 1, S0210: 1, H0695: 1, L0598: 1, L0640: 1, L0638: 1, L0761: 1, L0381: 1, L0803: 1, L0650: 1, L0651: 1, L0378: 1, L0806: 1, L0653: 1, L0776: 1, L0661: 1, L0527: 1, L0659: 1, L0529: 1, H0144: 1, H0702: 1, L0438: 1, H0519: 1, H0670: 1, H0648: 1, S0328: 1, S0044: 1, H0694: 1, H0555: 1,	
--	--	--

									H0436: 1, L0748: 1, L0756: 1, L0779: 1, H0595: 1, L0608: 1, L0593: 1, L0595: 1, L0362: 1, S0026: 1, H0136: 1 and S0192: 1.			
HOPJG50	1023584	595	866 - 507	2770					Thr-18 to Asn-31, Lys-39 to Ser-47, Ser-71 to His-76, Gln-113 to Lys-120.	4		
HDUAB04	1023585	596	3 - 371	2771					Thr-21 to Asn-34, Lys-42 to Ser-50, Ser-74 to His-79, Gln-116 to Lys-123.	4		
HVCAA38	1023632	597	27 - 818	2772					Asn-12 to Thr-17, Gln-60 to Arg-66, Ser-71 to Asn-83, Thr-89 to Ala-96, Gln-120 to Thr-126, Glu-149 to Lys-154, Thr-213 to Ser-219, Arg-231 to Tyr-244, Trp-252 to Trp-259.	22q12.1	123620, 188826, 600850, 601669	
HIBCN87	1023837	598	1753 - 776	2773					Arg-1 to Cys-7, Val-96 to Arg-105, Glu-130 to Leu-135, Pro-207 to Arg-225, Asp-231 to Cys-251, Pro-259 to Ile-264,	22q13.1	103050, 103050, 124030, 124030, 138981, 182380,	

HPCOM04	1024000	599	36 - 818	2774	Pro-294 to Pro-304, Glu-310 to Ile-316, Ser-320 to Pro-326.	H0052: 2, H0059: 2, L0662: 2, L0803: 2, L0789: 2, H0690: 2, L0748: 2, H0556: 1, S0114: 1, H0583: 1, S0376: 1, H0600: 1, H0618: 1, H0253: 1, T0010: 1, H0252: 1, H0617: 1, H0038: 1, H0100: 1, L0520: 1, L0761: 1, L0768: 1, L0766: 1, L0783: 1, L0666: 1, L0663: 1, H0547: 1, H0593: 1, H0683: 1, H0670: 1, H0648: 1, H0436: 1, L0751: 1, L0755: 1, H0445: 1 and H0352: 1.	22q11.1	188826, 190040, 190040, 190040
					Arg-1 to Gln-7, Pro-18 to Leu-23, Asp-42 to Ile-47, Gln-56 to Glu-63, Glu-93 to Ile-105, Glu-132 to Leu-137, Ile-202 to Leu-208, Asn-220 to Lys-226, Asn-254 to Phe-259.	L0438: 3, L0764: 2, H0659: 2, L0754: 2, H0589: 1, H0580: 1, H0013: 1, H0622: 1, H0617: 1, T0067: 1, L0767: 1, L0775: 1, L0655: 1, L0659: 1, L0666: 1, H0648: 1, S0330: 1, H0710: 1, L0748: 1, L0740: 1, L0747: 1, L0753: 1, L0480: 1 and L0599: 1.	231950, 600850	

HUCPU06	1024069	600	609 - 313	2775		L0766: 5, L0770: 2, L0803: 2, L0666: 2, L0747: 2, L0603: 2, H0686: 1, S0420: 1, L0662: 1, L0794: 1, L0783: 1, L0383: 1, L0809: 1, L0665: 1, H0684: 1, H0658: 1 and L0750: 1.		
HPAME01	1024332	601	564 - 1061	2776	Cys-1 to Gln-6, Val-19 to Ala-24.	L0439: 12, L0743: 5, L0747: 5, L0749: 5, L0769: 4, L0794: 4, L0731: 4, L0803: 3, L0774: 3, L0809: 3, H0254: 2, H0393: 2, H0318: 2, H0052: 2, H0188: 2, H0040: 2, L0659: 2, L0790: 2, L0438: 2, L0753: 2, H0423: 2, H0265: 1, H0685: 1, H0341: 1, H0402: 1, S0360: 1, H0580: 1, L0717: 1, H0550: 1, H0370: 1, H0333: 1, H0643: 1, H0486: 1, H0013: 1, H0250: 1, H0599: 1, H0042: 1, H0253: 1, H0327: 1, H0046: 1, H0086: 1, H0012: 1,		

						S0051: 1, H0399: 1, H0687: 1, H0286: 1, H0617: 1, H0032: 1, H0673: 1, S0036: 1, H0135: 1, H0591: 1, H0087: 1, H0100: 1, T0041: 1, H0494: 1, H0561: 1, H0130: 1, L0638: 1, L0764: 1, L0662: 1, L0804: 1, L0651: 1, L0657: 1, L0783: 1, L0666: 1, L0664: 1, L0665: 1, L0352: 1, H0547: 1, H0519: 1, H0682: 1, H0684: 1, H0521: 1, S0044: 1, H0631: 1, S0206: 1, L0754: 1, L0779: 1, L0780: 1, L0597: 1, H0543: 1, H0422: 1 and H0506: 1.			
HTTJS76	1024472	602	3 - 392	2777	Pro-1 to His-22, Lys-45 to Arg-59, Asp-77 to Pro-88, Ser-109 to Glu-119.	L0740: 15, L0754: 7, L0747: 6, L0777: 6, L0662: 5, H0539: 5, L0439: 5, L0758: 5, L0438: 4, L0748: 4, S0444: 3, H0031: 3, H0553: 3, L0770: 3, L0774: 3, L0749: 3, L0756: 3, L0755: 3,			

544

HCORI57	1024556	603	230 - 1237	2778	Gly-29 to Glu-35, Met-57 to Lys-64, Ser-104 to Ser-109, Tyr-122 to Val-128, Pro-144 to Asp-153, Pro-244 to Gly-253, Arg-323 to Pro-330.	H0519: 1, S0126: 1, H0689: 1, H0658: 1, H0666: 1, H0648: 1, H0651: 1, S0328: 1, S0152: 1, S0350: 1, H0521: 1, H0696: 1, S0146: 1, L0750: 1, L0752: 1, L0759: 1, H0445: 1, L0684: 1, L0686: 1, S0434: 1, S0436: 1, L0599: 1, L0361: 1 and S0106: 1.			
						H0553: 9, H0624: 4, L0471: 4, H0619: 3, H0494: 3, H0520: 3, H0547: 3, S0126: 3, L0755: 3, H0013: 2, H0031: 2, H0644: 2, H0040: 2, L0659: 2, L0666: 2, L0665: 2, H0144: 2, H0519: 2, H0670: 2, L0780: 2, L0361: 2, S0026: 2, H0171: 1, H0661: 1, S0360: 1, H0244: 1, H0156: 1, L0021: 1, S0010: 1, H0052: 1, H0046: 1, L0163: 1, S0214: 1, L0142: 1, H0032: 1, H0551: 1,	8p22	148370, 238600, 238600, 238600, 238600, 600143, 601385, 602629	

									H0059: 1, L0598: 1, L0520: 1, L0769: 1, L0637: 1, L0768: 1, L0803: 1, L0804: 1, L0653: 1, L0657: 1, L0383: 1, H0690: 1, H0435: 1, H0658: 1, S0330: 1, H0518: 1, S0152: 1, S0044: 1, S0027: 1, L0754: 1, L0747: 1, L0750: 1, L0731: 1, L0608: 1, L0593: 1, L0594: 1 and H0667: 1.			
HNORG50	1024624	604	2 - 1120	2779	Ile-1 to Gln-18, Lys-69 to Gln-74, Ala-81 to Arg-86, Lys-102 to Lys-107, Glu-146 to Val-153, His-156 to Ile-161, Glu-195 to Ser-207, Asp-306 to Leu-316, Ala-318 to Gly-333, Gln-346 to Asp-352.				L0601: 25, S0474: 22, H0521: 17, S0278: 16, H0542: 14, H0543: 13, L0596: 11, H0580: 10, H0494: 10, H0575: 8, L0659: 8, H0581: 7, H0559: 6, H0031: 6, L0655: 6, S3014: 6, S0027: 6, L0591: 6, H0657: 5, S0358: 5, S0360: 5, H0457: 5, H0529: 5, L0666: 5, S0152: 5, L0748: 5, L0731: 5, H0583: 4, H0650: 4, H0587: 4, H0318: 4, H0040: 4,			

547

548

	T0042: 1, H0280: 1, H0560: 1, H0509: 1, H0646: 1, H0538: 1, L0762: 1, L0638: 1, L0637: 1, L0372: 1, L0642: 1, L0643: 1, L0773: 1, L0648: 1, L0363: 1, L0794: 1, L0381: 1, L0804: 1, L0774: 1, L0775: 1, L0806: 1, L0805: 1, L0776: 1, L0383: 1, L0663: 1, H0144: 1, H0697: 1, S0374: 1, H0691: 1, L0438: 1, H0519: 1, H0690: 1, H0682: 1, H0684: 1, H0435: 1, H0658: 1, H0648: 1, S0328: 1, H0539: 1, H0518: 1, S0044: 1, H0134: 1, H0214: 1, H0555: 1, H0627: 1, S0432: 1, S3012: 1, S0028: 1, S0032: 1, L0743: 1, L0749: 1, L0779: 1, L0777: 1, L0757: 1, L0597: 1, L0599: 1, L0608: 1, H0665: 1, S0194: 1 and S0424: 1.					
--	---	--	--	--	--	--

HWLVR07	1024915	605	687 - 328	2780	Lys-28 to Thr-33, Asn-35 to Lys-53, Ala-98 to Glu-104.			
HOPKF60	1025047	606	1132 - 197	2781	Glu-41 to Lys-46, Ser-49 to Glu-55, Asp-109 to Arg-114, His-133 to Asp-138, Arg-170 to Glu-181, Ala-246 to Pro-254, Lys-282 to Ser-287, Ala-296 to Asp-302.	S0358: 10, H0584: 9, S0420: 8, L0439: 8, H0543: 8, H0250: 7, H0618: 7, L0601: 7, S0046: 6, H0424: 6, H0251: 5, H0046: 5, L0438: 5, H0435: 5, H0136: 5, S0045: 4, H0599: 4, H0494: 4, H0561: 4, H0547: 4, H0539: 4, L0748: 4, L0751: 4, S0212: 3, S0007: 3, H0486: 3, H0706: 3, H0253: 3, H0545: 3, S0036: 3, H0040: 3, H0551: 3, H0264: 3, H0132: 3, H0529: 3, H0144: 3, H0520: 3, H0448: 3, H0445: 3, H0665: 3, H0423: 3, H0677: 3, H0624: 2, S0040: 2, H0341: 2, H0484: 2, H0125: 2, S0360: 2, S0222: 2, H0586: 2, H0497: 2, H0575: 2, H0318: 2, H0052: 2,		

	H0059: 2, T0042: 2, S0440: 2, H0641: 2, S0210: 2, S0002: 2, S0126: 2, H0689: 2, H0666: 2, H0521: 2, S0027: 2, L0752: 2, S0434: 2, H0422: 2, S0042: 2, S0424: 2, H0170: 1, H0171: 1, H0556: 1, T0002: 1, H0218: 1, H0161: 1, H0686: 1, S0342: 1, H0716: 1, H0295: 1, H0294: 1, H0656: 1, H0483: 1, H0661: 1, H0458: 1, H0638: 1, H0192: 1, S0356: 1, S0442: 1, S0376: 1, S0444: 1, H0675: 1, H0580: 1, S0468: 1, H0208: 1, H0393: 1, L0717: 1, S0278: 1, H0261: 1, H0550: 1, S6014: 1, H0370: 1, H0592: 1, H0333: 1, H0559: 1, H0256: 1, H0485: 1, T0040: 1, L0586: 1, H0069: 1, H0075: 1, H0042: 1, H0581: 1, H0121: 1,	
--	--	--

552

HBDAD74	1025102	607	2 - 406	2782	Gly-22 to Glu-28, Glu-42 to Arg-60, Leu-67 to Glu-89, Asp-106 to Thr-118, Gln-120 to Ile-130.	S0028: 1, L0743: 1, L0744: 1, L0754: 1, L0745: 1, L0747: 1, L0755: 1, L0757: 1, L0759: 1, H0595: 1, L0596: 1, L0592: 1, L0608: 1, L0593: 1, H0668: 1, H0653: 1, H0542: 1, H0506: 1 and H0352: 1. L0766: 7, L0803: 4, L0779: 3, H0421: 2, H0615: 2, L0382: 2, L0748: 2, L0777: 2, L0002: 1, S0116: 1, H0638: 1, S0358: 1, H0393: 1, S6022: 1, H0431: 1, H0586: 1, H0486: 1, H0427: 1, S0474: 1, H0327: 1, H0057: 1, H0428: 1, S0036: 1, L0351: 1, H0538: 1, L0638: 1, L0667: 1, L0653: 1, L0659: 1, L0809: 1, H0693: 1, L0438: 1, H0547: 1, S0146: 1, H0626: 1, L0746: 1, L0756: 1, L0752: 1, L0731: 1, L0758: 1,		
---------	---------	-----	---------	------	---	---	--	--

HPCTY12	1025231	608	68 - 1225	2783	Ala-1 to Ser-8.	S0308: 1, H0595: 1, L0596: 1 and L0599: 1. L0805: 3, H0657: 2, L0769: 2, L0766: 2, L0659: 2, L0809: 2, L0789: 2, L0665: 2, L0565: 2, H0659: 2, L0749: 2, L0777: 2, L0755: 2, L0596: 2, H0685: 1, H0583: 1, H0650: 1, H0656: 1, H0663: 1, S0420: 1, S0356: 1, H0619: 1, L0717: 1, H0586: 1, H0251: 1, H0050: 1, H0622: 1, H0135: 1, H0038: 1, H0551: 1, H0272: 1, H0561: 1, H0509: 1, L0637: 1, L0646: 1, L0794: 1, L0387: 1, L0776: 1, L0655: 1, L0657: 1, L0636: 1, L0666: 1, L0664: 1, H0520: 1, H0547: 1, H0519: 1, H0672: 1, L0593: 1, H0667: 1 and H0352: 1.	12q12-q13	10777, 123940, 139350, 139350, 148040, 148041, 148043, 148070, 231550, 600194, 600231, 600536, 600808, 600956, 601284, 601769, 601769, 601928, 602116, 602153	
HFASF12	1025327	609	103 - 201	2784	Pro-19 to Cys-28.	L0747: 4, L0757: 4, L0759: 4, L0770: 3, L0769: 2, L0659: 2,			

HLIBM71	1025359	610	147 - 617	2785	Ser-26 to Ile-35.	H0691: 2, L0750: 2, S0116: 1, H0638: 1, S0300: 1, H0587: 1, L0021: 1, S0474: 1, H0529: 1, L0762: 1, L0764: 1, L0768: 1, L0775: 1, L0776: 1, L0634: 1, L0783: 1, L0663: 1, H0689: 1, H0521: 1, S0027: 1, L0748: 1, L0777: 1, L0752: 1, L0755: 1, L0731: 1, H0445: 1 and H0423: 1.		
						H0556: 4, H0253: 4, H0620: 4, L0731: 3, S0212: 2, H0052: 2, H0124: 2, L0766: 2, L0809: 2, L0565: 2, S0126: 2, S0328: 2, L0603: 2, H0739: 1, S0114: 1, S0218: 1, H0657: 1, S0116: 1, H0638: 1, S0420: 1, S0045: 1, S0046: 1, S0278: 1, H0549: 1, H0550: 1, H0250: 1, H0156: 1, L0738: 1, H0327: 1, H0544: 1, L0471: 1, H0083: 1,		

556

HPFDG48	1025526	612	461 - 303	2787		AR089: 2, AR039: 2, AR104: 2, AR053: 2, AR096: 2, AR060: 1, AR033: 1, AR061: 1, AR055: 1 L0748: 6, H0169: 1, S0428: 1, S0136: 1, L0754: 1 and L0749: 1.	Xp11.23- p11.22	300008, 300008, 300008, 300008, 300047, 300071, 300110, 300600, 301000, 301000, 301830, 309470, 309500, 309610, 309850, 311050, 312060
HVVBF24	1025712	613	49 - 1296	2788	Ser-1 to Gly-18, Trp-25 to Gly-31, Arg-46 to Ser-52, Ala-103 to Ala-108, Ser-154 to Gly-165, Gln-228 to Pro-236, Ser-284 to Gly-291, Ala-321 to Asp-327, Lys-377 to Asn-394, Asp-406 to Ser-416.	AR089: 13, AR060: 5, AR096: 5, AR104: 5, AR061: 2, AR055: 1 S0152: 12, S0356: 10, H0551: 6, H0423: 6, S0212: 5, H0090: 5, H0667: 5, S0358: 4, H0620: 4, H0622: 4, H0591: 4, L0794: 4, S0380: 4, L0731: 4, L0588: 4, S0242: 4, S0360: 3, S0474: 3, H0581: 3, S0126: 3,		

558

HE8UF88	1025745	614	4207 -	2789	Ala-8 to Arg-14,	S0250: 1, H0615: 1, H0029: 1, H0553: 1, H0644: 1, H0032: 1, H0169: 1, H0316: 1, H0038: 1, H0040: 1, H0634: 1, H0063: 1, T0067: 1, H0477: 1, H0488: 1, H0623: 1, H0494: 1, H0625: 1, L0065: 1, S0438: 1, H0509: 1, S0142: 1, L0770: 1, L0646: 1, L0662: 1, L0653: 1, L0776: 1, L0659: 1, L0526: 1, L0666: 1, S0374: 1, H0693: 1, H0547: 1, H0682: 1, H0435: 1, H0658: 1, H0660: 1, H0648: 1, H0672: 1, S0328: 1, H0710: 1, H0518: 1, H0579: 1, H0704: 1, H0555: 1, S0390: 1, S0037: 1, S0027: 1, L0439: 1, L0747: 1, L0752: 1, L0759: 1, H0444: 1, H0595: 1, L0362: 1, S0011: 1, S0194: 1 and S0384: 1.	H0547: 10, H0013: 9,
---------	---------	-----	--------	------	------------------	--	----------------------

560

L0743: 2, L0748: 2, L0751: 2, L0759: 2, L0593: 2, L0595: 2, H0667: 2, H0136: 2, H0423: 2, H0556: 1, S6024: 1, H0661: 1, H0663: 1, S0444: 1, S0278: 1, H0592: 1, H0587: 1, H0497: 1, H0333: 1, H0492: 1, H0427: 1, S0280: 1, H0575: 1, S0474: 1, H0596: 1, H0546: 1, H0123: 1, H0050: 1, L0471: 1, H0373: 1, L0163: 1, H0051: 1, H0083: 1, H0687: 1, H0328: 1, H0688: 1, H0622: 1, T0006: 1, H0169: 1, H0674: 1, H0708: 1, H0598: 1, H0616: 1, H0268: 1, H0623: 1, H0100: 1, L0475: 1, S0438: 1, S0150: 1, H0646: 1, L0369: 1, L0763: 1, L0638: 1, L0646: 1, L0773: 1, L0521: 1, L0662: 1, L0794: 1, L0522: 1, L0803: 1.
--

562

	H0587: 2, H0135: 2, H0591: 2, L0769: 2, L0774: 2, L0775: 2, L0659: 2, L0665: 2, H0672: 2, S0330: 2, H0539: 2, H0436: 2, L0754: 2, L0588: 2, L0605: 2, H0352: 2, T0002: 1, H0381: 1, S0116: 1, H0341: 1, H0638: 1, H0339: 1, L0717: 1, H0411: 1, H0441: 1, H0586: 1, H0333: 1, H0574: 1, S0280: 1, L0021: 1, H0253: 1, S0010: 1, S0346: 1, S0049: 1, H0085: 1, L0471: 1, H0024: 1, T0010: 1, H0239: 1, H0030: 1, H0031: 1, H0181: 1, H0032: 1, H0361: 1, H0598: 1, H0090: 1, H0100: 1, H0529: 1, L0637: 1, L0772: 1, L0646: 1, L0764: 1, L0771: 1, L0648: 1, L0521: 1, L0767: 1, L0766: 1, L0375: 1, L0378: 1, L0653: 1,	
--	--	--

HOVKE20	1025990	617	3 - 824	2792	Gln-52 to Thr-58, Pro-105 to Asp-111, Arg-175 to Cys-182, Leu-221 to Val-227, Thr-257 to Gly-264, Ser-266 to Glu-271.	L0657: 1, L0544: 1, L0647: 1, H0435: 1, H0659: 1, H0658: 1, H0670: 1, H0660: 1, H0521: 1, H0696: 1, H0555: 1, H0478: 1, S0037: 1, S0027: 1, L0756: 1, L0777: 1, L0753: 1, H0445: 1, L0596: 1, L0591: 1, S0026: 1 and S0446: 1.			
						H0618: 12, H0253: 11, 19p13 L0777: 8, L0755: 8, L0794: 6, L0659: 6, L0758: 6, S0192: 5, L0743: 4, S0418: 3, L0764: 3, S014: 3, L0744: 3, S0420: 2, S0046: 2, S0132: 2, H0333: 2, H0486: 2, H0599: 2, T0023: 2, L0774: 2, L0375: 2, H0555: 2, L0754: 2, L0749: 2, L0756: 2, L0731: 2, H0265: 1, H0295: 1, S0298: 1, S0212: 1, H0255: 1, H0661: 1, S0358: 1, H0580: 1, H0645: 1, H0549: 1, H0497: 1,			601011, 601011, 601011, 601011, 601768, 601843

565

566

H0041: 1, H0563: 1, H0081: 1, H0050: 1, L0163: 1, H0051: 1, H0688: 1, H0040: 1, H0634: 1, H0272: 1, H0334: 1, H0633: 1, H0646: 1, L0772: 1, L0800: 1, L0643: 1, L0764: 1, L0662: 1, L0767: 1, L0775: 1, L0651: 1, L0806: 1, L0805: 1, L0776: 1, L0656: 1, L0783: 1, L0809: 1, L0543: 1, L0789: 1, L0663: 1, H0682: 1, H0684: 1, H0659: 1, H0660: 1, H0709: 1, S0152: 1, H0436: 1, H0627: 1, L0611: 1, S0027: 1, L0439: 1, L0745: 1, L0759: 1, L0593: 1, L0361: 1, L0603: 1, H0668: 1, S0026: 1 and H0667: 1.						
H0328: 2, H0656: 1 and H0538: 1.						
H0583: 2, L0744: 2, L0747: 2, H0650: 1, H0656: 1, S0356: 1.						

HSKGR52	1026911	621	2 - 625	2796	<p>Asn-71 to Gln-76, Val-85 to Pro-101, Ser-104 to Arg-111, His-123 to Arg-128, Glu-146 to Arg-152, Val-155 to Asp-271, Leu-274 to Gly-279, Ser-283 to Glu-290.</p> <p>Asn-53 to Arg-58, Asp-79 to Tyr-89, Pro-98 to Pro-108, Lys-195 to Lys-200.</p>	<p>H0013: 1, H0590: 1, H0581: 1, H0251: 1, H0266: 1, H0328: 1, H0615: 1, H0135: 1, H0488: 1, H0538: 1, L0521: 1, H0539: 1, H0522: 1, S0028: 1, L0366: 1 and H0677: 1.</p> <p>AR052: 91, AR096: 79, AR053: 69, AR039: 64, AR089: 46, AR060: 39, AR033: 35, AR104: 32, AR055: 14, AR061: 10</p> <p>L0805: 22, L0794: 15, L0766: 12, L0747: 12, L0803: 11, L0740: 11, L0779: 11, L0776: 9, L0769: 7, H0521: 7, L0439: 7, L0731: 7, L0605: 7, S0474: 6, S0422: 6, L0752: 6, L0665: 5, L0748: 5, L0758: 5, H0618: 4, S0010: 4, L0771: 4, L0789: 4, S3014: 4, H0341: 3, H0615: 3, H0708: 3, L0763: 3, L0804: 3, L0659: 3, L0809: 3, S0052: 3,</p>		
---------	---------	-----	---------	------	---	---	--	--

				L0438: 3, H0658: 3, H0436: 3, L0759: 3, S0360: 2, S0222: 2, H0574: 2, H0599: 2, H0196: 2, H0050: 2, H0266: 2, H0135: 2, H0038: 2, H0616: 2, L0770: 2, H0144: 2, S0374: 2, L0352: 2, H0682: 2, H0670: 2, L0743: 2, L0744: 2, L0751: 2, L0749: 2, L0750: 2, L0756: 2, S0424: 2, H0624: 1, T0002: 1, T0049: 1, H0657: 1, L0785: 1, H0671: 1, S0442: 1, S0444: 1, S0408: 1, H0733: 1, S0278: 1, H0431: 1, H0013: 1, S0280: 1, H0581: 1, S0049: 1, H0052: 1, H0251: 1, L0040: 1, H0123: 1, L0471: 1, H0630: 1, H0375: 1, S0003: 1, H0252: 1, L0483: 1, T0006: 1, H0644: 1, H0673: 1, S0036: 1, H0163: 1, H0040: 1, H0551: 1.
--	--	--	--	--

570

HCOMA45	1026979	623	536 - 447	2798	Glu-13 to Gly-18.	H0662: 1, S0046: 1, H0658: 1 and H0670: 1.		
HE2KI45	1027007	624	3 - 1565	2799		L0803: 12, H0581: 8, 1 S0358: 6, H0046: 6, H0428: 6, S0356: 5, S0007: 5, H0031: 4, L0665: 4, H0271: 3, H0038: 3, L0794: 3, L0804: 3, L0666: 3, H0693: 3, S0406: 3, L0756: 3, L0758: 3, L0592: 3, S0116: 2, S0444: 2, H0431: 2, H0586: 2, H0486: 2, L0471: 2, H0615: 2, H0039: 2, S0036: 2, H0616: 2, S0422: 2, H0529: 2, L0770: 2, L0521: 2, L0662: 2, L0776: 2, L0787: 2, L0438: 2, H0670: 2, H0660: 2, S0328: 2, S0330: 2, H0436: 2, L0748: 2, L0755: 2, L0485: 2, L0599: 2, S0192: 2, H0423: 2, H0624: 1, S0342: 1, S0114: 1, H0650: 1, H0657: 1, H0638: 1, S0354: 1, S0360: 1,		

572

								H0478: 1, H0627: 1, H0631: 1, S0027: 1, L0740: 1, L0747: 1, L0749: 1, L0777: 1, L0752: 1, H0445: 1, S0436: 1, L0591: 1, S0196: 1, H0543: 1, S0424: 1, S0462: 1, S0446: 1 and H0506: 1.			
HODDO66	1027207	625	2 - 136	2800				H0667: 3, S0222: 2, H0013: 2, L0438: 2, H0265: 1, H0583: 1, S0280: 1, H0036: 1, H0318: 1, L0471: 1, H0266: 1, H0328: 1, H0553: 1, S0364: 1, H0038: 1, H0040: 1, H0488: 1, L0796: 1, H0144: 1, H0684: 1 and H0423: 1.	2p11.2	178640, 216900	
HVVAT45	1027269	626	71 - 1117	2801	Pro-1 to Leu-8, Arg-41 to Gly-48, Ile-73 to Cys-80, Ala-137 to Tyr-144, Lys-193 to Ala-208, Leu-254 to Leu-259, Ala-317 to Ala-323, Glu-343 to Phe-349.						
HVCAG18	1027484	627	1 - 393	2802	Leu-46 to Thr-53, Pro-80 to Ser-86,			H0690: 1, H0683: 1, H0666: 1 and S0328: 1.	20q12-q13.2	118504, 118504,	

				Arg-101 to Gly-112, Lys-115 to Gly-122.				131242, 139320, 139320, 139320, 139320, 600281, 600281, 602025	
HPTXK72	1027486	628	52 - 462	2803	Leu-52 to Thr-59, Pro-86 to Ser-92, Arg-107 to Gly-118, Lys-121 to Gly-128.		L0751: 29, H0549: 17, H0550: 17, L0666: 9, L0747: 8, H0689: 7, H0690: 7, H0682: 7, H0615: 6, H0670: 6, H0328: 5, H0150: 4, H0660: 4, S0330: 4, S0044: 4, L0362: 4, H0597: 3, H0688: 3, L0764: 3, L0657: 3, L0809: 3, L0753: 3, L0758: 3, L0759: 3, H0431: 2, H0046: 2, T0067: 2, H0059: 2, H0647: 2, L0774: 2, L0805: 2, L0783: 2, L0438: 2, H0593: 2, H0648: 2, H0672: 2, S0328: 2, S0404: 2, L0744: 2, L0779: 2, S0436: 2, H0662: 1, S0442: 1, S0444: 1,		

575

576

577

HPAMG11	1029484	631	1328 - 663	2806	Pro-32 to Lys-38, Ser-201 to Pro-211, Glu-217 to Glu-222.	H0413: 2, H0556: 1, H0638: 1, S0376: 1, H0457: 1, H0009: 1, H0519: 1, H0682: 1, H0672: 1, L0748: 1, L0759: 1 and H0445: 1.		
HSDJR27	1030870	632	1758 - 622	2807	Gln-8 to Arg-27, Val-34 to Asn-39, Tyr-65 to Gly-75, Glu-80 to Lys-87, Thr-207 to Gly-218, Thr-245 to Gln-250, Leu-256 to Thr-263, Leu-273 to Thr-281, Lys-289 to Leu-296, Ser-323 to Asn-330.	L0665: 3, L0777: 3, L0717: 2, L0776: 2, L0438: 2, L0756: 2, L0752: 2, S0116: 1, H0661: 1, H0339: 1, H0549: 1, H0587: 1, H0688: 1, H0553: 1, L0351: 1, S0422: 1, L0437: 1, L0769: 1, L0637: 1, L0771: 1, L0662: 1, L0794: 1, L0766: 1, L0655: 1, L0787: 1, L0789: 1, L0664: 1, L0352: 1, H0659: 1, L0748: 1, L0754: 1, L0779: 1, L0731: 1, L0758: 1, S0260: 1, L0480: 1, L0596: 1 and L0608: 1.		
HOCPL33	1030871	633	1032 - 571	2808	Asp-1 to Gly-6, Pro-14 to Trp-35, Arg-37 to Gly-45, Ser-63 to Pro-72, Pro-87 to Arg-100.	L0770: 4, L0439: 4, L0438: 3, H0670: 3, L0748: 3, L0740: 3, H0538: 2, L0777: 2, S0342: 1, S0110: 1,		

					Pro-102 to Gly-107.	S0354: 1, S0444: 1, S0360: 1, H0729: 1, H0728: 1, H0734: 1, H0619: 1, H0549: 1, H0550: 1, H0587: 1, H0427: 1, H0253: 1, H0023: 1, T0010: 1, H0039: 1, H0674: 1, H0135: 1, H0488: 1, H0494: 1, S0015: 1, H0647: 1, S0210: 1, L0763: 1, L0800: 1, L0644: 1, L0521: 1, L0768: 1, L0775: 1, L0805: 1, L0659: 1, L0782: 1, L0783: 1, L0528: 1, L0789: 1, L0791: 1, L0793: 1, L0532: 1, H0725: 1, H0659: 1, H0658: 1, H0660: 1, S0013: 1, S0037: 1, S0206: 1, L0751: 1, L0605: 1, L0485: 1, L0599: 1 and S0026: 1.			
HPCQN80	1030963	634	86 - 2158	2809		L0803: 4, L0777: 4, L0758: 4, L0804: 3, L0659: 3, L0752: 3, S0408: 2, L0717: 2, L0598: 2, L0770: 2,			

580

			1307				L0748: 5, L0666: 4, L0663: 4, L0634: 3, L0740: 3, H0445: 3, H0318: 2, H0046: 2, H0615: 2, H0428: 2, L0761: 2, L0775: 2, L0665: 2, H0658: 2, H0583: 1, H0656: 1, S0001: 1, H0637: 1, H0090: 1, H0038: 1, S0002: 1, L0520: 1, L0638: 1, L0649: 1, L0527: 1, L0657: 1, L0559: 1, L0647: 1, L0664: 1, S0052: 1, S0428: 1, H0682: 1, H0660: 1, H0555: 1 and L0751: 1.			
HODFZ16	1031085	636	340 - 498	2811	Phe-3 to Ala-23.		L0766: 2, L0748: 2, S0116: 1, L0005: 1, H0615: 1, H0529: 1, L0792: 1 and H0521: 1.			
HWGAE28	1031316	637	1 - 2271	2812	Cys-1 to Arg-6, Thr-84 to Thr-97, Arg-131 to Trp-136, Ser-155 to Gly-160, Thr-187 to Glu-201.		L0439: 9, H0519: 6, L0665: 5, H0547: 5, L0755: 5, S0434: 5, H0529: 4, L0659: 4, S0358: 3, S0010: 3, L0731: 3, L0599: 3, L0595: 3, H0422: 3, H0657: 2, H0581: 2,	2p24	107730, 107730, 107730, 107730, 182601, 602134	

582

HOFNZ21	1031328	638	109 - 456	2813	Arg-1 to Gly-6.	L0804: 1, L0650: 1, L0654: 1, L0661: 1, L0656: 1, L0526: 1, L0790: 1, L0666: 1, L0565: 1, H0520: 1, H0690: 1, H0435: 1, H0659: 1, H0670: 1, H0660: 1, H0696: 1, H0704: 1, S0406: 1, H0555: 1, S3014: 1, S0028: 1, L0740: 1, L0779: 1, L0777: 1, L0780: 1, L0592: 1, L0608: 1, L0362: 1, H0665: 1, S0194: 1, H0542: 1, H0423: 1 and L0465: 1.	9p13-p12	230400, 250250
HOOKH25	1031329	639	231 - 2696	2814	Ala-4 to Glu-13, Ala-21 to Asp-27, Lys-34 to Asn-40, Asp-91 to Ile-98, Pro-122 to Lys-128, Arg-160 to Gly-165, Glu-203 to Ser-213, Gly-218 to Cys-225, Ser-298 to Lys-304, Glu-307 to Asn-312, Pro-327 to His-333,	L0747: 8, L0659: 7, L0776: 5, L0770: 4, L0662: 4, L0768: 4, L0775: 4, L0752: 4, L0603: 4, H0556: 3, S0410: 3, L0665: 3, L0439: 3, L0750: 3, S0356: 2, S0408: 2, L0471: 2, H0271: 2, S0440: 2, L0762: 2, L0769: 2, L0372: 2,	9p13-p12	230400, 250250

Thr-363 to Ser-368, Arg-375 to Val-383, Asp-500 to Leu-505, Arg-602 to Asp-608, Glu-722 to Ser-734, Glu-739 to Val-744, Glu-746 to His-751, Leu-778 to Phe-784, Pro-790 to Gly-795, Ala-797 to Thr-807, Tyr-812 to Tyr-821.	L0646: 2, L0764: 2, L0773: 2, L0766: 2, L0649: 2, L0655: 2, L0663: 2, L0664: 2, H0144: 2, L0565: 2, H0547: 2, H0690: 2, H0659: 2, L0602: 2, S0404: 2, L0754: 2, L0749: 2, L0777: 2, L0758: 2, L0596: 2, H0657: 1, S0001: 1, H0484: 1, H0638: 1, S0418: 1, S0444: 1, L0717: 1, H0333: 1, H0156: 1, H0052: 1, H0545: 1, H0012: 1, H0083: 1, H0687: 1, H0674: 1, H0090: 1, H0063: 1, H0264: 1, H0100: 1, L0434: 1, L0351: 1, H0494: 1, H0561: 1, S0466: 1, H0641: 1, H0529: 1, L0763: 1, L0761: 1, L0667: 1, L0363: 1, L0650: 1, L0653: 1, L0654: 1, L0379: 1, L0607: 1, L0807: 1, L0635: 1, L0783: 1, L0383: 1, L0809: 1,					
---	--	--	--	--	--	--

								L0666: 1, H0658: 1, H0670: 1, H0648: 1, H0521: 1, S0406: 1, L0748: 1, L0731: 1, L0593: 1, L0595: 1, S0026: 1, S0276: 1 and H0422: 1.			
HDTIL75	1031435	640	1 - 1092	2815			Gly-1 to Arg-6, Glu-26 to Gly-31, Gln-70 to Trp-75.	S0410: 8, H0620: 5, H0012: 2, S0040: 1, S0358: 1, S0132: 1, H0486: 1, H0706: 1, H0031: 1, H0628: 1, H0316: 1, S0036: 1, H0090: 1, H0038: 1, H0131: 1, S0144: 1, L0774: 1, L0789: 1, L0666: 1, H0144: 1, L0438: 1, H0435: 1, H0672: 1, S0328: 1, H0539: 1, L0731: 1, S0436: 1 and H0665: 1.			
HPRSB55	1031451	641	3 - 1751	2816			Cys-18 to Lys-24, Gly-57 to Gly-63, Lys-72 to Ile-81, Cys-88 to Glu-93, Gly-97 to Glu-116, Thr-121 to Val-129, Lys-137 to Lys-150, Thr-156 to Asp-161, Gly-177 to Leu-182,	L0766: 4, L0758: 4, L0773: 3, L0748: 3, L0751: 3, L0731: 3, L0759: 3, H0171: 2, H0013: 2, H0644: 2, H0616: 2, H0633: 2, L0805: 2, L0659: 2, L0666: 2, L0665: 2, L0754: 2, L0779: 2,			

						Glu-213 to Leu-229, Asp-275 to Arg-281, Asp-287 to Trp-299, Lys-302 to Arg-316, Leu-338 to Ser-343.	S6024: 1, S0212: 1, S0354: 1, S0046: 1, T0039: 1, H0599: 1, H0575: 1, H0036: 1, T0110: 1, H0046: 1, H0050: 1, L0471: 1, H0355: 1, H0271: 1, H0687: 1, H0553: 1, H0166: 1, H0212: 1, H0211: 1, H0264: 1, H0272: 1, H0100: 1, H0494: 1, S0002: 1, L0637: 1, L0627: 1, L0645: 1, L0764: 1, L0803: 1, L0774: 1, L0653: 1, L0606: 1, L0790: 1, L0664: 1, H0435: 1, H0660: 1, H0648: 1, H0521: 1, L0439: 1, L0747: 1, L0749: 1, L0750: 1, L0752: 1 and L0596: 1.		
HPDPY36	1031606	642	482 - 757	2817	Pro-33 to Pro-40, Pro-47 to Met-56.	L0471: 1, H0617: 1, L0761: 1, L0768: 1, H0658: 1, L0754: 1 and L0779: 1.	12		
HETFI47	1031922	643	3 - 1328	2818		AR060: 4, AR089: 2, AR061: 1, AR096: 1, AR033: 0, AR039: 0, AR053: 0, AR052: 0			

	L0596: 7, H0622: 5, L0747: 5, H0046: 4, L0372: 4, L0764: 3, L0662: 3, L0657: 3, L0783: 3, L0663: 3, L0752: 3, H0662: 2, S0356: 2, H0040: 2, H0538: 2, L0646: 2, L0771: 2, L0774: 2, L0805: 2, L0809: 2, L0666: 2, L0665: 2, H0435: 2, H0672: 2, L0748: 2, L0751: 2, L0777: 2, L0608: 2, H0624: 1, H0686: 1, H0295: 1, H0241: 1, S0418: 1, S0358: 1, S0376: 1, S0360: 1, S0132: 1, H0642: 1, H0590: 1, H0150: 1, H0620: 1, H0023: 1, H0356: 1, H0424: 1, H0213: 1, H0617: 1, H0169: 1, H0634: 1, H0063: 1, T0067: 1, H0488: 1, H0334: 1, S0370: 1, S0440: 1, H0652: 1, L0645: 1, L0773: 1, L0648: 1, L0806: 1, L0776: 1,	
--	--	--

588

HCOQQ85	1032475	645	343 - 672	2820	Arg-37 to Ser-44, Leu-68 to Lys-73, Val-77 to Lys-84, Glu-98 to Lys-110.	L0794: 1, L0804: 1, L0774: 1, L0666: 1, L0664: 1, L0665: 1, S0052: 1, S0374: 1, H0658: 1, H0651: 1, S0028: 1, L0779: 1, L0780: 1, L0755: 1, L0759: 1, H0445: 1 and S0276: 1.	L0775: 9, S0126: 9, L0747: 9, H0617: 7, L0750: 7, L0731: 7, H0670: 5, L0740: 5, L0770: 4, L0769: 4, L0768: 4, L0783: 4, L0752: 4, T0023: 3, L0764: 3, L0653: 3, L0776: 3, H0672: 3, S0046: 2, T0039: 2, H0318: 2, H0251: 2, H0545: 2, H0012: 2, H0373: 2, S0388: 2, H0266: 2, H0087: 2, H0100: 2, H0280: 2, L0368: 2, L0753: 2, L0755: 2, L0757: 2, H0595: 2, L0590: 2, L0592: 2, S6024: 1, H0255: 1, H0664: 1, H0177: 1, S0360: 1,	1q21	104770, 107670, 110700, 135940, 145001, 146790, 152445, 152445, 159001, 174000, 179755, 182860, 182860, 182860, 191315, 230800, 230800, 266200, 600897, 601105, 601412,
---------	---------	-----	-----------	------	---	--	---	------	---

590

									H0660: 2, H0672: 2, S0031: 2, L0588: 2, H0624: 1, H0170: 1, H0265: 1, H0556: 1, H0295: 1, H0583: 1, H0657: 1, H0662: 1, S0356: 1, S0354: 1, S0360: 1, H0637: 1, S0046: 1, L0717: 1, H0550: 1, H0013: 1, H0086: 1, H0011: 1, H0510: 1, H0494: 1, H0646: 1, H0529: 1, L0502: 1, L0770: 1, L0638: 1, L0761: 1, L0521: 1, L0528: 1, L0666: 1, L0665: 1, H0144: 1, S0374: 1, H0519: 1, H0659: 1, S0380: 1, H0704: 1, S0028: 1, L0747: 1, L0779: 1, L0777: 1, H0653: 1, S0194: 1 and S0276: 1.				
HEBAE89	1034320	647	179 - 400	2822	Pro-20 to Phe-32, Pro-52 to Phe-59, Lys-68 to His-74.				S0007: 5, S0010: 1, H0617: 1 and L0769: 1.				
HKDBF43	1034471	648	3 - 431	2823	Pro-2 to Asp-14, Ser-71 to Thr-76, Ser-110 to Trp-119.				AR089: 31, AR053: 27, AR096: 26, AR052: 25, AR039: 16, AR060:				

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

L0663: 4, H0658: 4, L0599: 4, S0214: 3, L0637: 3, L0521: 3, L0804: 3, L0438: 3, H0435: 3, L0752: 3, S0408: 2, S0046: 2, H0497: 2, H0590: 2, H0050: 2, H0644: 2, H0264: 2, T0041: 2, S0002: 2, S0426: 2, L0770: 2, L0794: 2, L0775: 2, L0665: 2, H0547: 2, S0126: 2, H0659: 2, S0152: 2, H0478: 2, L0786: 2, L0779: 2, L0731: 2, L0759: 2, L0608: 2, H0423: 2, H0624: 1, H0556: 1, H0686: 1, S0342: 1, S0114: 1, S0132: 1, H0645: 1, S0222: 1, H0601: 1, H0270: 1, T0114: 1, H0013: 1, L0021: 1, H0599: 1, H0575: 1, H0318: 1, L0738: 1, H0327: 1, H0014: 1, H0373: 1, S0051: 1, H0021: 1, H0316: 1, H0040: 1, H0616: 1,							
--	--	--	--	--	--	--	--

594

								H0581: 2, H0059: 2, L0771: 2, L0809: 2, L0665: 2, L0749: 2, H0637: 1, H0497: 1, T0109: 1, H0036: 1, H0318: 1, H0039: 1, H0181: 1, H0038: 1, H0634: 1, L0637: 1, L0662: 1, L0649: 1, L0388: 1, L0776: 1, L0655: 1, L0658: 1, L0788: 1, H0520: 1, H0690: 1, H0670: 1, H0672: 1, L0751: 1, L0747: 1, L0750: 1, L0777: 1, L0758: 1 and L0361: 1.		
HODGO46	1035602	651	420 - 316	2826		Thr-11 to Asn-18, Gly-25 to Glu-30.	H0615: 2			
HNTTB23	1035988	652	3 - 974	2827		Pro-21 to Asn-31, Arg-158 to Lys-170, Thr-194 to Leu-200.	AR039: 2, AR096: 1, AR089: 1, AR060: 1, AR033: 1, AR061: 1, AR055: 0, AR053: 0 L0757: 3, L0594: 2, S0212: 1, L0527: 1, H0547: 1, S0328: 1 and L0756: 1.			
HVVBV73	1036583	653	334 - 1299	2828		His-55 to Arg-63, Glu-96 to Val-109, Ser-113 to Ala-119,	S0278: 5, H0580: 2, H0575: 2, H0050: 2, S0344: 2, L0764: 2,			

						Lys-140 to Tyr-150, Glu-157 to Ser-172, Gly-174 to Asn-185, Arg-223 to Pro-245, Leu-264 to Asp-272	H0672: 2, T0002: 1, S0134: 1, H0656: 1, S0116: 1, H0706: 1, S0010: 1, H0581: 1, H0375: 1, H0030: 1, H0031: 1, H0644: 1, H0090: 1, H0087: 1, T0041: 1, S0142: 1, S0002: 1, S0426: 1, L0770: 1, L0667: 1, L0794: 1, L0803: 1, L0543: 1, H0521: 1, L0748: 1, L0749: 1, S0260: 1 and H0542: 1.			
HE8MH38	1036707	654	1 - 1812	2829			H0013: 2 and S0126: 1, L0754: 6, L0758: 6, L0598: 3, L0756: 3, H0716: 2, S0358: 2, S0360: 2, S0007: 2, H0318: 2, H0052: 2, L0471: 2, H0615: 2, L0794: 2, L0766: 2, L0663: 2, H0658: 2, L0750: 2, L0731: 2, H0664: 1, H0638: 1, S0442: 1, H0741: 1, H0734: 1, H0229: 1, H0411: 1, H0415: 1, H0497: 1, H0574: 1, H0599: 1, H0108: 1,			
HTEPV42	1036973	655	1 - 435	2830		Gln-1 to Asp-6, Gly-11 to Ser-16, Pro-21 to Leu-41, Ser-44 to Pro-54.				

597

H0556: 3, L0665: 3, H0486: 2, S0010: 2, H0620: 2, T0006: 2, H0181: 2, H0494: 2, L0774: 2, L0375: 2, L0776: 2, L0512: 2, L0659: 2, H0555: 2, S0206: 2, L0740: 2, L0747: 2, L0596: 2, L0588: 2, S0276: 2, H0624: 1, S0402: 1, T0049: 1, H0341: 1, H0662: 1, S0358: 1, S0376: 1, S0360: 1, S0045: 1, S0476: 1, L0717: 1, H0351: 1, S0222: 1, H0455: 1, T0114: 1, L0021: 1, H0618: 1, T0048: 1, H0318: 1, L0109: 1, H0309: 1, H0544: 1, H0546: 1, H0545: 1, H0009: 1, H0123: 1, L0471: 1, H0424: 1, H0031: 1, H0628: 1, H0617: 1, H0063: 1, H0059: 1, H0100: 1, H0625: 1, H0633: 1, H0646: 1, H0517: 1, L0770: 1, L0764: 1,					
--	--	--	--	--	--

599

600

HPDVE37	1037303	658	34 - 885	2833	His-8 to Gly-18, Phe-25 to Ala-39, Val-70 to Ser-75, Gln-114 to Gly-121, Thr-146 to Lys-155, Gly-213 to Asn-219, Glu-256 to Asp-267.	H0521: 68, H0090: 12, L0666: 10, L0748: 10, L0775: 9, H0522: 9, H0638: 8, L0771: 8, L0659: 8, H0591: 7, L0747: 7, L0770: 5, L0664: 5, L0754: 5, H0580: 4, H0486: 4, H0622: 4, H0644: 4, H0551: 4, H0494: 4, L0655: 4, S0374: 4, L0755: 4, L0759: 4, S0132: 3, H0013: 3, H0421: 3, H0553: 3, H0616: 3, H0641: 3, S0142: 3, L0766: 3, L0663: 3, L0665: 3, H0547: 3, L0756: 3, L0779: 3, L0752: 3, S0358: 2, S0376: 2, S0444: 2, S0360: 2, S0278: 2, H0431: 2, H0586: 2, H0575: 2, H0318: 2, H0581: 2, H0457: 2, S0003: 2, H0688: 2, H0039: 2, H0264: 2, H0529: 2, L0763: 2, L0769: 2, L0646: 2, L0803: 2, L0774: 2, H0701: 2,		
---------	---------	-----	----------	------	--	--	--	--

602

									L0791: 1, H0702: 1, H0693: 1, H0593: 1, S0122: 1, H0689: 1, H0659: 1, H0658: 1, S0328: 1, H0539: 1, S0152: 1, H0479: 1, S3012: 1, S0027: 1, S0206: 1, L0744: 1, L0749: 1, L0757: 1, S0031: 1, H0707: 1, L0597: 1, L0605: 1, H0667: 1, S0242: 1, H0543: 1, H0423: 1, H0677: 1 and H0352: 1.			
HTLES74	1037438	659	95 - 859	2834					H0618: 3, L0740: 2, L0749: 2, L0596: 2, L0597: 2, S0354: 1, H0580: 1, H0042: 1, H0253: 1, S0010: 1, H0172: 1, H0615: 1, H0412: 1, S0386: 1, L0648: 1, L0662: 1, L0768: 1, L0803: 1, L0774: 1, L0657: 1, L0809: 1, L0779: 1, L0758: 1 and H0445: 1. S0136: 33, L0747: 16, H0144: 14, L0731: 14, L0752: 13, S0422: 12, L0740: 12, L0754: 11,			
HCORG51	1037480	660	3 - 434	2835	Cys-1 to Glu-6, Asp-52 to Asp-65, Lys-82 to Pro-88, Phe-111 to Ala-123.							

	L0750: 11, H0038: 10, S0026: 10, H0556: 9, S0360: 9, L0665: 9, H0521: 9, H0616: 8, L0520: 8, L0776: 8, L0664: 8, L0757: 8, H0009: 7, S0003: 7, L0655: 7, S0406: 7, L0748: 7, H0170: 6, L0471: 6, H0620: 6, S0440: 6, L0518: 6, L0749: 6, L0608: 6, H0341: 5, S0442: 5, H0351: 5, H0370: 5, H0013: 5, H0090: 5, H0551: 5, L0598: 5, L0375: 5, L0659: 5, S0126: 5, H0682: 5, H0648: 5, L0751: 5, H0543: 5, H0423: 5, L0005: 4, S0444: 4, S0007: 4, H0163: 4, H0494: 4, H0529: 4, L0769: 4, L0521: 4, L0775: 4, L0666: 4, H0659: 4, H0670: 4, S0027: 4, L0758: 4, H0542: 4, H0657: 3, S0212: 3, S0354: 3, S0408: 3, H0580: 3,	
--	---	--

				S0476: 3, S0278: 3, S0222: 3, H0486: 3, H0687: 3, H0674: 3, S0448: 3, L0646: 3, L0662: 3, L0649: 3, L0774: 3, L0657: 3, S0374: 3, H0547: 3, S0328: 3, S3014: 3, H0444: 3, H0171: 2, H0265: 2, T0002: 2, S0040: 2, H0716: 2, H0295: 2, T0049: 2, S0218: 2, H0656: 2, S0116: 2, H0638: 2, S0418: 2, S0420: 2, S0358: 2, S0045: 2, H0369: 2, H0431: 2, H0415: 2, H0592: 2, H0586: 2, H0574: 2, T0109: 2, H0250: 2, S0280: 2, S0010: 2, H0052: 2, H0050: 2, H0012: 2, H0051: 2, S0051: 2, H0266: 2, H0288: 2, S0214: 2, H0252: 2, H0428: 2, H0039: 2, H0673: 2, H0135: 2, H0063: 2, H0412: 2, H0623: 2, S0150: 2, H0207: 2.				
--	--	--	--	--	--	--	--	--

H0641: 2, S0142: 2, S0344: 2, L0770: 2, L0771: 2, L0766: 2, L0558: 2, L0519: 2, H0520: 2, H0684: 2, H0435: 2, H0710: 2, H0696: 2, H0704: 2, H0134: 2, H0436: 2, S0028: 2, L0756: 2, L0753: 2, H0445: 2, S0434: 2, L0588: 2, H0422: 2, S0470: 1, H0686: 1, H0685: 1, S0342: 1, H0294: 1, S0114: 1, S0134: 1, H0583: 1, H0484: 1, H0663: 1, H0241: 1, H0176: 1, S0356: 1, T0008: 1, H0637: 1, H0152: 1, S0046: 1, H0619: 1, H0645: 1, H0411: 1, H0438: 1, H0600: 1, H0497: 1, H0642: 1, H0331: 1, T0039: 1, H0635: 1, H0427: 1, H0156: 1, H0097: 1, H0575: 1, H0706: 1, H0390: 1, H0581: 1, H0421: 1, H0434: 1, H0196: 1,	
--	--

	H0309: 1, H0596: 1, L0040: 1, H0597: 1, H0327: 1, H0530: 1, H0544: 1, H0545: 1, H0046: 1, N0006: 1, H0570: 1, H0569: 1, H0172: 1, H0123: 1, H0010: 1, H0373: 1, H0083: 1, H0510: 1, H0099: 1, H0267: 1, H0290: 1, H0328: 1, H0535: 1, H0622: 1, L0483: 1, T0006: 1, H0316: 1, H0591: 1, H0040: 1, H0634: 1, H0413: 1, H0100: 1, T0041: 1, H0334: 1, H0560: 1, H0625: 1, S0438: 1, H0647: 1, S0144: 1, H0538: 1, UNKWN: 1, L0369: 1, L0762: 1, L0637: 1, L0761: 1, L0373: 1, L0764: 1, L0773: 1, L0648: 1, L0626: 1, L0767: 1, L0794: 1, L0386: 1, L0378: 1, L0805: 1, L0629: 1, L0383: 1, L0382: 1, L0809: 1, L0530: 1.				
--	--	--	--	--	--

HPAMM72	1038344	661	2 - 520	2836	Gly-1 to Thr-11.	L0789: 1, L0663: 1, S0428: 1, H0701: 1, L0565: 1, H0519: 1, H0593: 1, H0689: 1, H0658: 1, H0672: 1, S0330: 1, H0539: 1, S0378: 1, S0380: 1, H0709: 1, S0152: 1, S0332: 1, S0044: 1, S0188: 1, H0187: 1, L0356: 1, H0478: 1, H0627: 1, H0631: 1, L0611: 1, S0206: 1, S0032: 1, L0439: 1, L0786: 1, H0343: 1, L0592: 1, L0485: 1, H0668: 1, H0136: 1, S0194: 1, S0196: 1, S0460: 1, H0506: 1 and H0008: 1.	16p13.3	141750, 141800, 141800, 141800, 141800, 141800, 141850, 141850, 141850, 141850, 141850.
						L0747: 5, H0424: 4, H0617: 4, L0769: 3, L0526: 3, S3014: 3, L0748: 3, L0750: 3, H0661: 2, H0663: 2, H0392: 2, H0156: 2, H0123: 2, H0033: 2, H0213: 2, H0059: 2, L0763: 2, L0542: 2, H0519: 2, L0751: 2,		

HKZAT03	1038378	662	21 - 1559	2837	Thr-1 to Gly-8, Phe-49 to Leu-67, Gln-142 to Gly-150, Pro-274 to Leu-282,	L0779: 2, L0731: 2, L0757: 2, L0605: 2, L0615: 1, S0342: 1, H0580: 1, S0278: 1, H0550: 1, S0280: 1, L0021: 1, T0048: 1, H0052: 1, H0544: 1, H0545: 1, L0471: 1, H0012: 1, H0620: 1, H0014: 1, N0007: 1, S0051: 1, H0083: 1, H0284: 1, S0250: 1, H0688: 1, H0708: 1, H0080: 1, H0494: 1, H0509: 1, L0770: 1, L0764: 1, L0771: 1, L0376: 1, L0782: 1, L0809: 1, L0545: 1, L0666: 1, H0682: 1, H0659: 1, H0658: 1, H0672: 1, H0696: 1, S0044: 1, H0214: 1, L0743: 1, L0740: 1, L0754: 1, L0777: 1, S0260: 1, S0276: 1 and S0196: 1.	L0779: 2, L0731: 2, L0757: 2, L0605: 2, L0615: 1, S0342: 1, H0580: 1, S0278: 1, H0550: 1, S0280: 1, L0021: 1, T0048: 1, H0052: 1, H0544: 1, H0545: 1, L0471: 1, H0012: 1, H0620: 1, H0014: 1, N0007: 1, S0051: 1, H0083: 1, H0284: 1, S0250: 1, H0688: 1, H0708: 1, H0080: 1, H0494: 1, H0509: 1, L0770: 1, L0764: 1, L0771: 1, L0376: 1, L0782: 1, L0809: 1, L0545: 1, L0666: 1, H0682: 1, H0659: 1, H0658: 1, H0672: 1, H0696: 1, S0044: 1, H0214: 1, L0743: 1, L0740: 1, L0754: 1, L0777: 1, S0260: 1, S0276: 1 and S0196: 1.	156850, 186580, 191092, 600140, 600273, 601313, 601785	
								22q13.33	

HDQMA85	1038717	663	228 - 356	2838	Pro-396 to Leu-402, Arg-405 to Glu-410, Gly-436 to Ala-442, Arg-470 to Pro-476, Pro-481 to Leu-486.	L0665: 3, S0328: 3, H0518: 3, H0423: 3, S0358: 2, H0622: 2, H0641: 2, L0763: 2, L0663: 2, L0664: 2, H0689: 2, H0522: 2, H0555: 2, H0422: 2, H0624: 1, H0585: 1, H0657: 1, H0671: 1, H0402: 1, S0376: 1, H0580: 1, S0278: 1, H0549: 1, H0602: 1, H0586: 1, H0069: 1, H0635: 1, H0581: 1, H0546: 1, H0510: 1, H0179: 1, H0271: 1, H0644: 1, H0606: 1, H0090: 1, H0634: 1, H0551: 1, H0488: 1, H0509: 1, L0640: 1, L0800: 1, L0662: 1, L0804: 1, L0607: 1, L0657: 1, L0809: 1, L0790: 1, L0666: 1, H0593: 1, H0684: 1, H0672: 1, H0710: 1, S0434: 1, S0436: 1 and S0196: 1.	12p12.3- p12.1	103950, 112410,
---------	---------	-----	-----------	------	---	---	-------------------	--------------------

HVCCQ82	1038718	664	3 - 578	2839	Ala-14 to Asp-19, Lys-92 to Arg-110.	L0748: 34, L0777: 15, S0438: 11, S0192: 11, L0608: 7, H0331: 6, H0574: 6, L0771: 6, S0027: 6, L0756: 6, H0632: 5, L0731: 5, S0360: 4, H0427: 4, L0662: 4, L0744: 4, L0779: 4, L0757: 4, S0242: 4, S0354: 3, S0408: 3, H0494: 3, H0509: 3, L0770: 3, L0775: 3, L0809: 3, L0666: 3, H0519: 3, H0648: 3, S014: 3, S0028: 3, L0750: 3, H0661: 2, S0442: 2, S0358: 2, S0376: 2, S0444: 2, H0013: 2, S0280: 2, H0309: 2, H0545: 2, H0510: 2, H0032: 2, H0551: 2, S0142: 2, S0422: 2, L0774: 2, L0806: 2,	12p12.3- p12.1	150100, 168470, 190070, 190070, 200990, 602096 103950, 112410, 150100, 168470, 190070, 190070, 200990, 602096
---------	---------	-----	---------	------	---	---	-------------------	--

L0776: 2, L0518: 2, L0532: 2, S0374: 2, H0547: 2, H0435: 2, H0696: 2, S0206: 2, S0032: 2, L0755: 2, L0758: 2, H0668: 2, S0194: 2, H0170: 1, H0685: 1, S0116: 1, H0638: 1, H0339: 1, S0045: 1, S0278: 1, S6022: 1, H0586: 1, H0497: 1, H0486: 1, L0021: 1, H0003: 1, H0147: 1, H0421: 1, H0546: 1, S0050: 1, H0014: 1, H0015: 1, S0051: 1, H0355: 1, H0375: 1, H0031: 1, H0628: 1, H0038: 1, S0014: 1, S0466: 1, S0440: 1, H0633: 1, H0646: 1, S0344: 1, S0210: 1, S0002: 1, L0371: 1, L0638: 1, L0772: 1, L0373: 1, L0764: 1, L0522: 1, L0803: 1, L0526: 1, L0545: 1, L0787: 1, L0790: 1, L0663: 1, H0520: 1, H0593: 1.
--

							S0126: 1, H0682: 1, H0660: 1, H0666: 1, S0152: 1, S0406: 1, S0392: 1, H0345: 1, L0742: 1, L0439: 1, L0740: 1, L0753: 1, H0444: 1, H0653: 1 and S0196: 1.			
HTGFP54	1038915	665	22 - 528	2840			H0435: 2, S0218: 1 and H0415: 1.			
HBODF41	1039017	666	1 - 2418	2841			L0747: 26, L0740: 20, L0748: 18, L0752: 14, L0745: 13, L0599: 11, L0659: 8, H0509: 7, L0756: 7, L0777: 7, S0222: 6, S0010: 6, L0764: 6, L0776: 6, L0666: 6, L0754: 6, L0746: 6, H0013: 5, S0346: 5, H0050: 5, L0750: 5, L0758: 5, S0360: 4, H0574: 4, H0632: 4, S0280: 4, L0471: 4, H0039: 4, H0622: 4, L0766: 4, L0774: 4, L0783: 4, H0445: 4, L0366: 4, H0586: 3, H0251: 3, H0014: 3, T0010: 3, H0644: 3, L0769: 3,			

614

615

616

HPAMC60	1039290	668	1 - 1242	2843	Pro-7 to Pro-17, Leu-20 to Gly-26, Leu-48 to Val-54, Pro-65 to Asn-70, Glu-90 to Ala-95, Ala-102 to Gln-116, Glu-122 to Leu-137, Val-183 to Leu-192, Ala-235 to Ile-256, Gly-264 to Asp-270, Phe-282 to Ile-288, Arg-309 to Ala-314, Asn-330 to Asp-336, Ala-338 to Asp-344, Lys-358 to Lys-367.	L0750: 1, L0758: 1, S0106: 1 and S0446: 1, H0682: 1	15q22	102578, 109700, 151670, 154550, 601780	
HLMHM83	1039491	669	155 - 745	2844	Val-43 to Tyr-48, Pro-50 to Ser-57, Thr-75 to Gly-83, Tyr-95 to Asn-105, Tyr-155 to Trp-163.	H0617: 7, L0771: 6, S0408: 4, S0358: 3, H0638: 2, L0761: 2, L0764: 2, L0655: 2, L0634: 2, L0666: 2, H0435: 2, L0751: 2, L0777: 2, H0506: 2, H0650: 1, H0254: 1, H0255: 1, S0444: 1, H0351: 1, H0549: 1, H0600: 1, H0592: 1, L0022: 1, H0744: 1,			

618

619

620

								H0046: 1, H0687: 1, L0369: 1, L0770: 1, L0769: 1, L0772: 1, L0800: 1, L0806: 1, L0518: 1, L0809: 1, L0788: 1, H0144: 1, L0438: 1, H0660: 1, H0666: 1, H0648: 1, L0439: 1, L0747: 1, L0750: 1, L0756: 1, L0752: 1, L0759: 1, S0434: 1 and S0436: 1.			170500, 176960, 182452, 230200, 249000, 253250
HMEFK29	1039652	672	643 - 999	2847				H0402: 2, H0570: 1, H0266: 1 and H0666: 1, L0748: 28, L0758: 13, L0769: 7, L0766: 7, S0026: 7, L0749: 6, H0266: 5, H0616: 4, L0750: 4, L0362: 4, H0341: 3, H0658: 3, L0747: 3, H0686: 2, H0318: 2, H0413: 2, H0494: 2, L0646: 2, H0659: 2, L0751: 2, L0731: 2, L0759: 2, L0588: 2, T0002: 1, H0656: 1, H0484: 1, H0661: 1, L0481: 1, H0125: 1, S0045: 1, H0351: 1, H0013: 1,			
HAOSK79	1039663	673	48 - 659	2848	Asp-10 to Gly-17, Asp-38 to Ser-44, Asn-70 to Thr-79, Gly-81 to Ser-91, Lys-94 to Ala-102, Asp-110 to Ile-116, Asp-152 to Leu-157, Pro-172 to Glu-177.						

622

				Tyr-400 to Lys-410, Pro-413 to Gly-420, Lys-454 to Leu-463, Pro-501 to Gly-514, Gln-535 to Leu-549.	H0013: 5, H0457: 5, H0553: 5, H0673: 5, H0696: 5, S0406: 5, L0740: 5, L0731: 5, L0596: 5, H0585: 4, H0661: 4, S0418: 4, S0356: 4, S0408: 4, H0575: 4, H0620: 4, H0617: 4, L0764: 4, L0666: 4, L0665: 4, H0519: 4, S014: 4, S0027: 4, L0752: 4, H0265: 3, H0713: 3, H0657: 3, H0341: 3, H0671: 3, H0638: 3, S0420: 3, S0354: 3, H0619: 3, H0411: 3, H0370: 3, H0586: 3, H0587: 3, H0597: 3, L0471: 3, H0687: 3, S0250: 3, S0003: 3, S0142: 3, H0529: 3, L0662: 3, L0766: 3, L0651: 3, L0659: 3, H0690: 3, S0152: 3, H0436: 3, S0028: 3, L0748: 3, L0750: 3, L0779: 3, L0755: 3, L0757: 3, H0445: 3, S0011: 3, H0423: 3,		
--	--	--	--	---	---	--	--

	H0686: 2, T0049: 2, S0134: 2, S0116: 2, H0663: 2, H0662: 2, S0444: 2, S0045: 2, S0046: 2, S0132: 2, S0278: 2, H0549: 2, H0550: 2, H0497: 2, H0156: 2, H0599: 2, H0263: 2, H0544: 2, H0012: 2, H0014: 2, S0314: 2, H0428: 2, H0039: 2, H0135: 2, H0087: 2, H0623: 2, H0059: 2, H0100: 2, H0509: 2, S0150: 2, H0641: 2, S0144: 2, S0210: 2, S0002: 2, L0763: 2, L4497: 2, L0768: 2, L0774: 2, L0653: 2, L0654: 2, L0527: 2, L0657: 2, H0144: 2, S0374: 2, H0691: 2, H0520: 2, H0593: 2, H0689: 2, H0435: 2, H0658: 2, S0330: 2, S0378: 2, S0380: 2, L0754: 2, L0756: 2, L0758: 2, L0591: 2, L0485: 2, L0599: 2, S0026: 2	
--	---	--

			H0667: 2, S0192: 2, H0422: 2, H0506: 2, L0600: 2, H0171: 1, T0002: 1, H0717: 1, H0716: 1, H0295: 1, H0650: 1, S0180: 1, H0484: 1, H0483: 1, H0306: 1, S0442: 1, S0376: 1, H0675: 1, S0410: 1, H0489: 1, H0637: 1, S0007: 1, H0645: 1, H0393: 1, L0717: 1, S0222: 1, H0392: 1, H0415: 1, H0601: 1, H0600: 1, H0574: 1, T0039: 1, H0244: 1, H0427: 1, S0280: 1, H0098: 1, H0042: 1, T0082: 1, H0036: 1, S0346: 1, H0705: 1, H0505: 1, H0309: 1, H0545: 1, L0041: 1, H0015: 1, H0373: 1, S0051: 1, H0071: 1, H0510: 1, H0375: 1, S0318: 1, S0022: 1, H0252: 1, H0688: 1, H0644: 1, H0628: 1, L0055: 1, H0032: 1, H0169: 1,				
--	--	--	--	--	--	--	--

626

HOPJD35	1039703	675	2590 - 1349	2850	Ser-1 to Pro-16, Asn-40 to Gly-46, Pro-48 to Arg-53, Lys-64 to Pro-72, Val-87 to Asp-93, Asp-109 to Tyr-118, Glu-157 to Pro-172, Pro-178 to Gly-188, Glu-252 to Leu-263, Thr-266 to Leu-273, Glu-296 to Ala-310, Glu-312 to Gln-318, Glu-324 to Asn-340, Glu-344 to Gly-373, Glu-383 to Asn-395, Val-399 to Glu-414.	<p>H0627: 1, L0612: 1, S0206: 1, L0743: 1, L0439: 1, L0751: 1, L0753: 1, L0759: 1, S0260: 1, H0444: 1, L0608: 1, L0593: 1, H0668: 1, H0665: 1, S0242: 1, S0194: 1, S0196: 1, S0424: 1, H0008: 1, H0352: 1 and H0712: 1.</p> <p>L0662: 7, H0013: 5, L0766: 5, L0803: 4, L0655: 4, L0665: 4, L0740: 4, L0731: 4, H0677: 4, T0042: 3, L0776: 3, L0809: 3, H0519: 3, L0750: 3, L0759: 3, H0543: 3, H0170: 2, L0470: 2, H0341: 2, S0360: 2, H0266: 2, H0551: 2, L0351: 2, H0529: 2, L0646: 2, L0521: 2, L0651: 2, L0659: 2, L0663: 2, L0664: 2, H0547: 2, H0659: 2, L0602: 2, H0518: 2, H0522: 2, S0406: 2, L0748: 2, L0747: 2.</p>		
---------	---------	-----	----------------	------	---	--	--	--

628

629

630

								L0764: 1, L0521: 1, L0662: 1, L0774: 1, L0375: 1, L0805: 1, L0776: 1, L0655: 1, L0606: 1, L0659: 1, L0635: 1, L0809: 1, L0367: 1, L0789: 1, L0665: 1, H0519: 1, H0684: 1, H0670: 1, H0666: 1, H0710: 1, H0704: 1, H0134: 1, H0555: 1, L0439: 1, L0750: 1, L0779: 1, L0777: 1, L0752: 1, L0755: 1, L0758: 1, S0436: 1, L0608: 1, L0362: 1, H0667: 1, S0196: 1, H0542: 1, H0543: 1, H0422: 1 and H0352: 1.			
HTHDT76	1039871	677	1 - 603	2852	Gln-16 to Ser-24.	S0420: 1, H0600: 1, H0587: 1, H0013: 1, H0428: 1, H0644: 1, H0063: 1, H0386: 1 and L0747: 1.					
HSYEC21	1039891	678	411 - 2372	2853		H0521: 9, L0439: 9, L0747: 8, L0655: 6, L0748: 6, S0212: 5, S6028: 4, L0483: 4, L0794: 4, L0766: 4,	12q21-q23	124200, 147440, 160781, 217300, 235800.			

	H0040: 3, H0634: 3, S0386: 3, L0800: 3, L0662: 3, L0665: 3, L0438: 3, S0028: 3, L0740: 3, H0318: 2, H0544: 2, S0051: 2, H0615: 2, H0163: 2, H0494: 2, L0645: 2, L0649: 2, L0803: 2, L0804: 2, L0659: 2, H0547: 2, H0689: 2, S0380: 2, H0522: 2, L0743: 2, L0744: 2, L0749: 2, L0596: 2, L0366: 2, S0242: 2, S0114: 1, H0583: 1, H0650: 1, H0656: 1, H0341: 1, S0001: 1, H0483: 1, H0402: 1, H0638: 1, S0356: 1, S0354: 1, S0358: 1, S0408: 1, H0580: 1, L0103: 1, S0045: 1, H0640: 1, H0586: 1, H0360: 1, H0643: 1, H0486: 1, H0013: 1, H0036: 1, H0263: 1, H0546: 1, H0012: 1, S0050: 1, S0388: 1, H0399: 1, H0510: 1,	600175, 600808
--	--	-------------------

									H0271: 1, H0687: 1, S0003: 1, S0214: 1, H0428: 1, T0006: 1, H0591: 1, H0551: 1, T0067: 1, H0412: 1, H0560: 1, H0641: 1, S0210: 1, S0426: 1, L0606: 1, L0657: 1, L0518: 1, L0545: 1, H0144: 1, H0519: 1, S0126: 1, S0378: 1, H0436: 1, S3014: 1, L0750: 1, L0756: 1, L0779: 1, L0780: 1, L0758: 1, L0759: 1, H0668: 1 and S0026: 1.			
HKGCO25	1040384	679	3 - 719	2854	Glu-53 to Phe-58, Arg-70 to Phe-79, Ile-94 to Val-102, Thr-106 to Thr-118, Glu-139 to Asp-149, Asp-183 to Lys-215.							
HNOJN70	1040385	680	273 - 425	2855					L0766: 12, L0759: 8, H0171: 6, L0754: 6, L0731: 6, H0624: 5, H0584: 5, H0031: 5, S0422: 5, L0663: 5, H0547: 5, L0756: 5, S0276: 5, H0686: 4, S0474: 4, L0662: 4,			

L0777: 4, L0758: 4, H0170: 3, L0717: 3, H0457: 3, H0090: 3, L0770: 3, L0794: 3, L0650: 3, L0805: 3, L0655: 3, L0659: 3, L0666: 3, H0520: 3, H0543: 3, S0412: 3, H0657: 2, H0341: 2, H0306: 2, H0402: 2, S0358: 2, S0360: 2, H0574: 2, T0060: 2, H0318: 2, L0163: 2, H0328: 2, L0483: 2, H0591: 2, L0637: 2, L0646: 2, L0771: 2, L0521: 2, L0649: 2, L0803: 2, L0657: 2, L0656: 2, L0517: 2, L0789: 2, H0539: 2, H0521: 2, L0742: 2, L0439: 2, L0751: 2, L0747: 2, L0752: 2, L0592: 2, L0599: 2, L0594: 2, L0362: 2, H0556: 1, H0167: 1, H0685: 1, H0344: 1, H0650: 1, S0116: 1, S0418: 1, S0420: 1, S0356: 1, S0376: 1,
--

				H0580: 1, S0045: 1, S0046: 1, S6026: 1, H0351: 1, S0222: 1, H0438: 1, H0486: 1, H0427: 1, L0021: 1, H0097: 1, H0004: 1, H0581: 1, L0041: 1, H0050: 1, L0471: 1, H0023: 1, H0057: 1, H0015: 1, H0051: 1, H0266: 1, S0336: 1, H0687: 1, S0003: 1, S0214: 1, H0622: 1, H0674: 1, H0040: 1, H0616: 1, H0413: 1, T0069: 1, H0100: 1, H0494: 1, H0561: 1, L0065: 1, H0509: 1, H0646: 1, L0598: 1, L0763: 1, L0769: 1, L0638: 1, L0796: 1, L0761: 1, L0641: 1, L0643: 1, L0549: 1, L0498: 1, L0375: 1, L0776: 1, L0527: 1, L0526: 1, L0518: 1, L0783: 1, L0809: 1, L0664: 1, H0144: 1, S0374: 1, T0068: 1, L0438: 1, L0352: 1,	
--	--	--	--	--	--

636

HJBD C89	1040569	682	1418 - 726	2857	Gly-11 to Pro-17, Ser-61 to Gly-68, Val-103 to Leu-108, His-157 to Pro-162, Glu-197 to Pro-203, Gly-207 to Thr-213.	L0789: 1, L0666: 1, L0663: 1, H0690: 1, H0659: 1, H0670: 1, S0328: 1, S0028: 1, L0747: 1 and L0752: 1, L0439: 5, L0749: 5, L0770: 4, L0764: 4, L0438: 4, S0126: 4, L0758: 4, S0358: 3, L0768: 3, L0774: 3, L0783: 3, H0660: 3, S0152: 3, L0752: 3, L0755: 3, L0731: 3, L0592: 3, S0026: 3, H0656: 2, S0360: 2, S0010: 2, H0050: 2, H0169: 2, T0042: 2, L0775: 2, L0518: 2, L0809: 2, L0664: 2, L0665: 2, H0672: 2, L0754: 2, H0543: 2, L0615: 1, H0686: 1, S0116: 1, S0420: 1, S0408: 1, T0112: 1, H0156: 1, H0575: 1, H0706: 1, H0546: 1, H0572: 1, H0123: 1, L0471: 1, H0024: 1, H0373: 1, S0388: 1, T0010: 1, H0510: 1,	14q24.1- q24.3	104311, 109150, 182600, 245200, 601208
----------	---------	-----	------------	------	--	---	-------------------	--

638

640

641

642

HOCOC14	1040932	690	494 - 1384	2865	Leu-32 to Lys-43, Phe-92 to Arg-98, Glu-118 to Thr-136, Pro-173 to Tyr-178, Pro-215 to Asn-222, Leu-230 to Asn-235.	H0556: 8, L0758: 7, L0593: 7, H0542: 7, L0601: 6, L0747: 5, H0618: 4, H0620: 4, H0617: 4, H0494: 4, L0439: 4, L0751: 4, S0420: 3, S0046: 3, H0622: 3, H0087: 3, L0766: 3, H0690: 3, H0670: 3, S0328: 3, L0748: 3, L0754: 3, L0731: 3, H0543: 3, H0265: 2, H0650: 2, H0484: 2, H0255: 2, S0418: 2, H0549: 2, H0333: 2, H0024: 2, H0551: 2, S0150: 2, L0764: 2, L0662: 2, L0375: 2, L0663: 2, L0665: 2, H0660: 2, H0521: 2, S0146: 2, L0741: 2, L0779: 2, L0361: 2, L0603: 2, H0422: 2, H0170: 1, S0040: 1, H0295: 1, H0294: 1, H0657: 1, H0656: 1, H0341: 1, S0212: 1, H0661: 1, S0442: 1, S0354: 1, S0360: 1, L0717: 1,	19q13.1	164731, 172400, 172400, 180901, 180901, 221770, 248600, 600918, 602716
---------	---------	-----	------------	------	--	--	---------	--

	S0278: 1, H0437: 1, H0550: 1, H0438: 1, H0592: 1, H0497: 1, H0486: 1, H0101: 1, H0013: 1, H0575: 1, H0253: 1, H0581: 1, H0052: 1, H0251: 1, H0309: 1, H0204: 1, H0545: 1, H0041: 1, H0009: 1, H0081: 1, H0014: 1, H0083: 1, H0354: 1, H0266: 1, H0687: 1, H0292: 1, H0284: 1, H0039: 1, H0553: 1, H0606: 1, H0166: 1, H0068: 1, H0135: 1, H0040: 1, H0268: 1, H0412: 1, S0038: 1, H0100: 1, T0041: 1, H0280: 1, H0429: 1, H0561: 1, S0440: 1, H0641: 1, S0144: 1, S0210: 1, S0002: 1, L0640: 1, L0770: 1, L0769: 1, L0637: 1, L0761: 1, L0642: 1, L0771: 1, L0648: 1, L0774: 1, L0655: 1, L0629: 1, L0658: 1, L0809: 1,	
--	--	--

								L0789: 1, L0790: 1, L0666: 1, L0664: 1, H0547: 1, H0593: 1, H0689: 1, H0684: 1, S0330: 1, H0539: 1, S0152: 1, H0522: 1, H0134: 1, S0406: 1, H0555: 1, H0627: 1, L0743: 1, L0750: 1, L0756: 1, L0752: 1, L0757: 1, S0434: 1, S0436: 1, S0276: 1, H0423: 1 and S0424: 1.			
HOGDP49	1041049	691	1 - 489	2866	Pro-6 to Gly-12, Ala-30 to Arg-35, Arg-90 to Thr-102, Phe-112 to Asp-120, Asn-157 to Thr-163.			H0265: 2, H0556: 1, S0418: 1, S0376: 1, T0060: 1, S0280: 1, H0615: 1, H0628: 1, H0059: 1, H0100: 1, L0438: 1, S0126: 1, H0435: 1 and H0660: 1.			
HOFMK22	1041070	692	3 - 359	2867	Asp-22 to Val-42, Phe-50 to Tyr-55, Leu-65 to Gln-70.			H0415: 2			
HBGNT69	1041900	693	808 - 383	2868	Glu-20 to Ser-27, Ala-49 to Pro-55, Phe-66 to Asp-71, Ala-77 to Val-83, Pro-85 to Tyr-103, Pro-135 to Ala-142.			H0052: 3, H0617: 3, H0135: 3, H0012: 2, H0253: 1, S0210: 1, L0659: 1 and L0779: 1.			
HSPSI42	1042462	694	3684 - 283	2869	Pro-5 to Ser-12,			L0666: 16, L0751: 15, Xp11.23			300047,

Arg-20 to Lys-35, Gly-45 to Gly-56, Pro-81 to Cys-99, Arg-195 to Ser-207, Ser-287 to Pro-292, Thr-301 to Gly-306, Asn-336 to Met-341, Ser-357 to Arg-364, Cys-416 to Asp-430, Gln-450 to Asp-455, Pro-509 to Thr-516, Arg-523 to Gly-529, Lys-541 to Lys-546, Ser-623 to Arg-634, Tyr-636 to Gln-642, Asp-661 to Leu-671, Glu-692 to Lys-703, Gln-734 to Tyr-742, Thr-792 to Ile-798, Pro-806 to Thr-811, Phe-875 to Gly-880, Ser-886 to Gln-891, Val-897 to Glu-903, Glu-926 to Asn-932, Arg-945 to Asp-950, Pro-952 to Lys-958, Gly-991 to Gly-1001, Pro-1019 to Trp-	L0596: 8, S0010: 7, L0754: 7, L0731: 7, L0758: 7, L0595: 7, S0007: 6, L0741: 6, L0591: 6, H0556: 5, H0622: 5, L0662: 5, L0665: 5, L0743: 5, L0748: 5, L0745: 5, L0747: 5, H0657: 4, L0771: 4, L0663: 4, L0664: 4, H0689: 4, L0742: 4, L0439: 4, L0592: 4, L0362: 4, S0276: 4, H0661: 3, H0176: 3, H0545: 3, H0178: 3, H0424: 3, L0369: 3, L0766: 3, L0659: 3, H0547: 3, S0406: 3, L0750: 3, L0599: 3, L0361: 3, L0601: 3, H0543: 3, T0049: 2, H0484: 2, S0420: 2, S0360: 2, L0717: 2, H0370: 2, H0333: 2, H0635: 2, H0318: 2, H0196: 2, H0085: 2, H0546: 2, H0050: 2, T0010: 2, H0428: 2, H0213: 2, H0674: 2, H0591: 2,	300071, 300110, 300600, 301000, 301000, 301830, 309470, 309500, 309610, 309850, 311050, 312060
--	--	---

647

L0483: 1, T0006: 1, H0604: 1, H0405: 1, H0181: 1, H0617: 1, H0169: 1, L0455: 1, H0135: 1, H0038: 1, H0087: 1, T0067: 1, H0412: 1, H0413: 1, H0059: 1, T0069: 1, T0004: 1, L0351: 1, T0041: 1, S0440: 1, H0641: 1, S0422: 1, H0529: 1, L0536: 1, L0535: 1, L0638: 1, L0637: 1, L0646: 1, L0521: 1, L0794: 1, L0650: 1, L0376: 1, L0653: 1, L0655: 1, L0606: 1, L0635: 1, L0518: 1, L0382: 1, L0809: 1, L0519: 1, L0541: 1, L0790: 1, L0793: 1, L0532: 1, H0723: 1, H0520: 1, H0593: 1, H0683: 1, H0684: 1, H0659: 1, H0648: 1, H0672: 1, H0521: 1, H0696: 1, H0694: 1, S0037: 1, L0744: 1, L0740: 1, L0780: 1, L0757: 1,
--

HPDQD23	1042649	695	174 - 344	2870	Leu-17 to Glu-22, Pro-44 to Gly-51.	L0759: 1, H0445: 1, L0587: 1, L0589: 1, L0593: 1, L0594: 1, S0106: 1, S0011: 1, H0136: 1, H0423: 1 and H0293: 1.		
HWMB10	1042859	696	39 - 476	2871	Pro-18 to Pro-24, Thr-45 to Gly-54, Ser-60 to Ser-67, Ala-82 to His-92, Pro-94 to Ser-106, Pro-126 to Arg-133.	H0657: 4, H0687: 2, H0658: 2, H0422: 2, H0222: 1, H0581: 1, S0050: 1, H0412: 1, H0641: 1, H0538: 1, L0648: 1, L0662: 1, L0766: 1, L0775: 1, L0805: 1, L0809: 1, L0438: 1, H0689: 1, S0328: 1, H0525: 1, L0439: 1 and L0755: 1. S0410: 52, H0617: 5, L0774: 4, S0408: 3, H0360: 3, H0486: 3, L0809: 3, S0380: 3, L0751: 3, L0749: 3, L0361: 3, S0358: 2, S0376: 2, S0360: 2, L0764: 2, L0779: 2, L0752: 2, H0484: 1, H0483: 1, S0442: 1, H0734: 1, H0370: 1, H0257: 1, L0623: 1, H0599: 1, H0575: 1,	12q22	147440, 201470, 235800, 273300

650

651

652

653

654

655

656

L0766: 5, S0003: 4, L0770: 4, L0769: 4, S0330: 4, L0740: 4, L0747: 4, L0731: 4, L0758: 4, L0601: 4, H0664: 3, S0356: 3, S0360: 3, H0123: 3, L0471: 3, H0620: 3, H0100: 3, S0150: 3, L0764: 3, L0771: 3, L0662: 3, L0649: 3, L0803: 3, L0527: 3, S0374: 3, H0682: 3, H0660: 3, H0666: 3, H0648: 3, H0521: 3, L0755: 3, H0542: 3, H0556: 2, T0049: 2, S0418: 2, S0007: 2, S0045: 2, S0046: 2, H0443: 2, S0222: 2, H0586: 2, S0010: 2, H0581: 2, H0012: 2, H0373: 2, H0266: 2, H0031: 2, H0032: 2, H0551: 2, H0412: 2, H0538: 2, L0369: 2, L0637: 2, L0772: 2, L0773: 2, L0768: 2, L0375: 2, L0659: 2, S0126: 2, H0658: 2,	180901, 221770, 248600, 600918, 602716
--	--

L0439: 2, L0751: 2, L0750: 2, L0752: 2, L0596: 2, S0424: 2, H0506: 2, H0585: 1, H0294: 1, H0583: 1, H0656: 1, S0116: 1, H0483: 1, T0007: 1, S0354: 1, S0132: 1, H0369: 1, H0549: 1, H0550: 1, H0370: 1, H0409: 1, H0299: 1, H0600: 1, H0497: 1, H0574: 1, H0559: 1, L0623: 1, H0486: 1, H0244: 1, S0280: 1, H0156: 1, H0599: 1, H0575: 1, H0036: 1, H0004: 1, H0618: 1, S0346: 1, H0318: 1, S0049: 1, H0052: 1, H0085: 1, H0235: 1, H0545: 1, S0388: 1, H0021: 1, H0354: 1, H0355: 1, S6028: 1, H0615: 1, H0428: 1, H0424: 1, S0366: 1, S0036: 1, H0135: 1, S0466: 1, L0065: 1, H0633: 1, H0646: 1, S0144: 1, S0344: 1,
--

HVVB94	1043532	701	1 - 852	2876	Lys-1 to Cys-12, Gln-51 to Leu-56, Asp-63 to Asn-70, Lys-75 to Gln-80, Pro-116 to Thr-122, Gly-181 to Gly-190, Asp-210 to Gly-218,	S0422: 1, S0426: 1, L0763: 1, L0638: 1, L0796: 1, L0761: 1, L0667: 1, L0372: 1, L0800: 1, L0642: 1, L0804: 1, L0774: 1, L0775: 1, L0651: 1, L0633: 1, L0657: 1, L0558: 1, L0526: 1, L0384: 1, L0666: 1, L0664: 1, L0665: 1, H0520: 1, H0519: 1, H0593: 1, H0689: 1, H0659: 1, S0328: 1, S0380: 1, H0518: 1, S0152: 1, H0522: 1, H0134: 1, S3012: 1, S0390: 1, L0749: 1, L0780: 1, L0757: 1, S0031: 1, S0436: 1, L0595: 1, S0026: 1, H0653: 1, H0665: 1 and H0543: 1.	11q21-q22	105580, 133780, 203100, 203100, 602574, 602574
--------	---------	-----	---------	------	--	--	-----------	---

660

HVVBC43	1043553	702	2754 - 2083	2877	Arg-3 to Thr-10, Arg-26 to Gly-42, Asn-46 to Ser-59, Glu-106 to Ala-122, Ser-129 to Asp-139, Thr-144 to Thr-156, Leu-197 to Thr-206, Pro-208 to Tyr-219.	L0747: 1, L0749: 1, L0779: 1, L0755: 1, S0308: 1 and H0506: 1, L0717: 10, L0748: 9, L0439: 8, H0623: 7, H0052: 6, H0013: 5, L0776: 5, L0438: 5, L0740: 5, H0521: 4, L0756: 4, H0265: 3, H0556: 3, S0360: 3, L0010: 3, H0620: 3, L0662: 3, L0665: 3, H0522: 3, S0116: 2, S0418: 2, S0358: 2, S0046: 2, H0635: 2, H0575: 2, H0590: 2, S0010: 2, L0109: 2, L0471: 2, H0428: 2, H0622: 2, H0031: 2, H0038: 2, H0264: 2, H0059: 2, S0015: 2, H0641: 2, L0770: 2, L0769: 2, L0773: 2, L0774: 2, L0655: 2, L0659: 2, L0789: 2, S0126: 2, S0037: 2, L0744: 2, L0747: 2, L0779: 2, L0758: 2, L0601: 2, H0170: 1, H0686: 1, S0040: 1.	4p16.3	134934, 134934, 134934, 134934, 134934, 143100, 180072, 180072, 194190, 252800, 252800, 252800, 600965
---------	---------	-----	----------------	------	---	--	--------	--

H0294: 1, T0049: 1, H0650: 1, H0657: 1, S0212: 1, S0282: 1, H0484: 1, H0663: 1, H0305: 1, S0140: 1, H0393: 1, H0351: 1, H0437: 1, H0442: 1, H0250: 1, H0427: 1, H0156: 1, H0599: 1, H0036: 1, S0346: 1, H0318: 1, H0251: 1, H0457: 1, H0009: 1, H0123: 1, H0050: 1, H0024: 1, H0051: 1, H0083: 1, H0266: 1, H0416: 1, H0286: 1, H0328: 1, L0483: 1, H0030: 1, H0376: 1, H0598: 1, H0090: 1, H0634: 1, H0616: 1, H0551: 1, H0268: 1, H0269: 1, H0100: 1, H0494: 1, S0144: 1, L0763: 1, L0772: 1, L0646: 1, L0541: 1, L0771: 1, L0767: 1, L0766: 1, L0804: 1, L0606: 1, L0809: 1, L0666: 1, L0663: 1, L0664: 1, H0144: 1,					
--	--	--	--	--	--

							H0520: 1, H0519: 1, H0682: 1, H0659: 1, H0672: 1, S0328: 1, H0539: 1, S0152: 1, H0555: 1, H0626: 1, S0014: 1, S0028: 1, L0751: 1, L0786: 1, L0777: 1, L0731: 1, L0757: 1, L0759: 1, H0667: 1, H0542: 1, H0422: 1 and H0677: 1.		
HTPDM31	1044199	703	1010 - 3	2878	Ser-49 to Leu-55, Pro-151 to Asp-157, Ala-168 to Arg-184, Pro-191 to Pro-215, Pro-232 to Pro-240, Pro-255 to Arg-268.		H0617: 6, L0666: 3, H0188: 2, H0181: 2, H0196: 1, H0039: 1, H0673: 1, L0373: 1, L0775: 1, L0659: 1, L0809: 1, L0789: 1, L0663: 1, L0665: 1, H0658: 1, S0330: 1, S0378: 1 and S0406: 1.		
HSQEK12	1044577	704	35 - 439	2879	Ala-1 to Asp-16.		L0748: 5, L0439: 5, L0751: 3, L0777: 3, L0758: 2, L0596: 2, L0603: 2, S0001: 1, S0278: 1, H0581: 1, H0052: 1, H0123: 1, H0620: 1, S0388: 1, H0628: 1, H0040: 1, H0616: 1, H0646: 1, L0763: 1, L0770: 1.		

HPDRZ16	1044618	705	187 - 834	2880	Pro-16 to Ala-22, Ala-26 to Val-31, Ser-66 to Val-73, Ala-80 to Pro-90, Glu-127 to Ala-135, Glu-142 to Glu-161, Leu-166 to Trp-173, Pro-176 to Gln-183, Arg-204 to Asp-211	L0769: 1, L0800: 1, L0794: 1, L0803: 1, L0378: 1, L0776: 1, L0655: 1, L0789: 1, H0670: 1, S0328: 1, H0696: 1, S0406: 1, H0436: 1, L0746: 1, L0779: 1, S0031: 1, L0595: 1, S0011: 1 and S0026: 1, L0766: 14, L0769: 12, L0774: 10, L0770: 8, L0740: 7, L0759: 7, H0484: 5, H0617: 5, L0803: 5, L0751: 5, L0747: 5, H0483: 4, S0358: 4, H0670: 4, L0780: 4, L0731: 4, H0445: 4, S0436: 4, H0341: 3, H0618: 3, H0251: 3, H0546: 3, H0087: 3, L0761: 3, L0800: 3, L0794: 3, L0789: 3, H0672: 3, L0743: 3, L0750: 3, L0757: 3, H0728: 2, H0733: 2, S0474: 2, H0545: 2, H0620: 2, H0024: 2, H0428: 2, H0649: 2, L0772: 2	Xq13.1	304040, 305100, 305450, 309605, 312760, 314250, 314580
---------	---------	-----	-----------	------	--	---	--------	--

665

HVCBC44	1044635	706	3 - 896	2881	Ala-1 to Gln-8, Lys-18 to Arg-23, Lys-56 to Val-64, Lys-129 to Ala-140, Pro-149 to Asn-155.	L5568: 1, L0804: 1, L0775: 1, L0375: 1, L0806: 1, L0653: 1, L0783: 1, L0384: 1, L0787: 1, L0665: 1, H0520: 1, S0126: 1, H0689: 1, H0684: 1, H0658: 1, H0660: 1, H0710: 1, H0696: 1, H0134: 1, H0631: 1, S0028: 1, S0032: 1, L0439: 1, L0754: 1, L0749: 1, L0779: 1, L0758: 1, S0031: 1, L0361: 1, H0542: 1, H0423: 1 and H0008: 1.		
HPIAC22	1044711	707	701 - 1741	2882		H0666: 70, L0766: 3, L0665: 3, H0596: 2, L0794: 2, L0747: 2, H0624: 1, H0656: 1, L0717: 1, H0013: 1, H0318: 1, H0169: 1, L0643: 1, L0645: 1, L0764: 1, L0804: 1, L0657: 1, H0660: 1, L0757: 1, L0588: 1, L0592: 1, L0595: 1 and L0601: 1.		

HSODA53	1044741	708	855 - 995	2883				L0788: 1, H0520: 1, L0746: 1, L0747: 1, L0758: 1 and L0759: 1, AR055: 11, AR060: 6, AR033: 5, AR052: 4, AR061: 4, AR104: 4, AR096: 4, AR089: 4, AR039: 3, AR053: 3 H0328: 2, H0124: 2, L0766: 2, H0171: 1, L0005: 1, S0360: 1, H0329: 1, H0615: 1, H0477: 1, S0440: 1, L0598: 1, H0547: 1, S0126: 1, S0168: 1 and H0595: 1.		
HE9ML74	1044760	709	3 - 959	2884	Asp-8 to Asp-20, Phe-43 to Arg-52, Ser-102 to Asp-107, His-109 to Asp-124, Phe-131 to Lys-136, Pro-143 to Pro-149, Lys-189 to Leu-200, Asn-305 to Trp-310.			AR033: 5, AR060: 4, AR096: 4, AR089: 2, AR053: 1, AR061: 1, AR052: 1, AR055: 0, AR104: 0 L0803: 9, L0758: 7, L0439: 6, L0740: 5, L0766: 4, L0666: 4, L0663: 4, L0754: 4, L0747: 4, L0804: 3, H0144: 3, L0750: 3, L0756: 3, L0752: 3, L0600: 3, S0003: 2, L0455: 2, S0366: 2.		

	H0529: 2, L0659: 2, L0809: 2, L0665: 2, H0547: 2, H0672: 2, H0539: 2, L0748: 2, L0759: 2, L0591: 2, L0485: 2, S0040: 1, H0650: 1, H0656: 1, S0212: 1, H0663: 1, S0360: 1, H0351: 1, S0222: 1, S6014: 1, H0392: 1, H0632: 1, T0114: 1, H0427: 1, L0021: 1, H0599: 1, H0575: 1, H0581: 1, S0049: 1, L0471: 1, H0373: 1, H0510: 1, S6028: 1, H0615: 1, H0622: 1, S0036: 1, T0067: 1, H0413: 1, T0041: 1, S0002: 1, S0426: 1, L0369: 1, L0770: 1, L0769: 1, L0761: 1, L0772: 1, L0646: 1, L0794: 1, L0774: 1, L0775: 1, L0655: 1, L0661: 1, L0647: 1, L0792: 1, L0793: 1, L0664: 1, H0682: 1, H0435: 1, H0659: 1, H0660: 1.	
--	--	--

HPDRB76	1044762	710	145 - 855	2885	Glu-14 to Gly-20, Gly-30 to Ala-37, Glu-121 to Leu-127, Lys-152 to Tyr-157, Glu-159 to Thr-173, Leu-177 to Lys-186.	H0651: 1, S0013: 1, H0696: 1, H0436: 1, L0779: 1, L0608: 1, S0446: 1 and H0506: 1, L0747: 8, S0358: 6, L0766: 5, L0774: 5, L0750: 5, L0666: 4, S0406: 4, L0731: 4, H0341: 3, H0696: 3, L0748: 3, L0758: 3, H0650: 2, S0356: 2, S0410: 2, L0717: 2, H0014: 2, L0667: 2, L0768: 2, L0775: 2, L0659: 2, L0783: 2, H0659: 2, H0648: 2, S0330: 2, H0539: 2, L0742: 2, L0439: 2, L0745: 2, L0757: 2, L0759: 2, L0592: 2, L0599: 2, L0595: 2, H0657: 1, S0212: 1, H0662: 1, H0125: 1, S0420: 1, S0354: 1, S0444: 1, S0132: 1, S0476: 1, H0370: 1, L0181: 1, H0069: 1, H0427: 1, L0021: 1, H0575: 1, H0318: 1, S0214: 1, H0039: 1,	1p34	I30500, I33200, I38140, I68360, I71760, I71760, I76100, I76100, I78300, 230000, 255800
---------	---------	-----	-----------	------	--	---	------	--

670

			S0420: 2, S0360: 2, H0551: 2, H0412: 2, S0440: 2, L0804: 2, L0789: 2, L0666: 2, L0747: 2, S0436: 2, L0599: 2, H0542: 2, H0223: 1, H0159: 1, H0717: 1, H0716: 1, S0282: 1, H0580: 1, S0046: 1, H0411: 1, H0486: 1, H0013: 1, H0596: 1, L0738: 1, H0544: 1, H0046: 1, L0471: 1, H0014: 1, H0083: 1, S0003: 1, H0553: 1, L0055: 1, H0124: 1, H0591: 1, H0616: 1, H0059: 1, H0494: 1, S0294: 1, H0529: 1, L0770: 1, L0769: 1, L0800: 1, L0644: 1, L0764: 1, L0771: 1, L0662: 1, L0364: 1, L0653: 1, L0776: 1, L0655: 1, L0659: 1, L0526: 1, L0382: 1, S0148: 1, H0693: 1, S0328: 1, S0152: 1, H0436: 1, H0631: 1, S3014: 1,					
--	--	--	--	--	--	--	--	--

							S0027: 1, L0439: 1, L0749: 1, L0779: 1, L0777: 1, L0731: 1, L0757: 1, H0444: 1, H0445: 1, S0026: 1, S0242: 1, S0194: 1 and H0423: 1.			
HOGCI31	1044821	712	49 - 558	2887			H0435: 1 and S0424: 1.			
HNOKX86	1044893	713	69 - 575	2888			L0740: 20, L0754: 14, L0742: 9, L0771: 7, L0748: 7, L0749: 7, L0752: 6, S0422: 5, L0770: 5, H0585: 4, S0360: 4, H0581: 4, L0769: 4, L0775: 4, S0374: 4, H0521: 4, L0747: 4, L0779: 4, L0753: 4, L0758: 4, H0295: 3, S0278: 3, S0440: 3, S0002: 3, L0649: 3, L0806: 3, S0126: 3, S0380: 3, S0434: 3, S0436: 3, S0026: 3, H0170: 2, H0661: 2, S0358: 2, S0045: 2, H0370: 2, H0442: 2, H0318: 2, S0474: 2, H0687: 2, S0003: 2, H0551: 2, S0438: 2, H0509: 2.			

	S0344: 2, L0764: 2, L0662: 2, L0766: 2, L0776: 2, L0659: 2, H0659: 2, S014: 2, S0027: 2, L0751: 2, L0756: 2, L0755: 2, L0731: 2, L0588: 2, L0599: 2, H0422: 2, H0265: 1, H0556: 1, S0040: 1, H0294: 1, S0218: 1, H0656: 1, S0116: 1, H0341: 1, S0212: 1, S0418: 1, S0356: 1, S0354: 1, S0376: 1, H0580: 1, H0728: 1, H0733: 1, H0639: 1, H0441: 1, H0431: 1, H0537: 1, H0330: 1, H0013: 1, H0052: 1, H0309: 1, H0231: 1, H0530: 1, H0544: 1, H0046: 1, H0009: 1, H0123: 1, S0388: 1, S0051: 1, H0355: 1, H0266: 1, H0615: 1, H0622: 1, H0644: 1, H0674: 1, H0124: 1, H0316: 1, H0135: 1, H0038: 1, H0372: 1, H0366: 1,					
--	---	--	--	--	--	--

674

HPCTV49	1045379	715	34 - 444	2890	Ser-21 to Pro-28, Pro-36 to Ser-63, Gln-67 to Thr-83, Arg-88 to Thr-94, Pro-106 to Lys-111, Gly-125 to Gly-132.	H0553: 2, S0282: 1, S0049: 1, H0052: 1, H0622: 1, H0040: 1 and S0406: 1. S0358: 17, S0360: 7, L0604: 7, L0769: 5, L0497: 5, L0655: 5, L0590: 4, H0543: 4, L0622: 3, L0499: 3, L0775: 3, H0659: 3, H0670: 3, L0757: 3, L0588: 3, L0601: 3, S0276: 3, S0114: 2, H0657: 2, S0007: 2, H0586: 2, T0109: 2, T0048: 2, H0327: 2, L0471: 2, H0494: 2, L0770: 2, L0662: 2, L0527: 2, L0513: 2, L0530: 2, H0144: 2, H0689: 2, H0672: 2, H0521: 2, L0750: 2, L0755: 2, L0731: 2, L0596: 2, L0599: 2, L0608: 2, L0440: 1, T0049: 1, H0341: 1, H0483: 1, H0125: 1, H0580: 1, S0045: 1, H0351: 1, H0411: 1, S0222: 1, L0623: 1,			
---------	---------	-----	----------	------	--	--	--	--	--

676

HHGDK68	1045464	716	121 - 999	2891	Arg-128 to Asp-133, Lys-155 to Gln-164, Tyr-168 to Leu-174, Glu-190 to Leu-197, Pro-213 to Arg-224, Met-226 to Ser-241, Pro-247 to Ser-255.	L0361: 1, S0026: 1, H0667: 1 and H0542: 1.	22q13.1	103050, 103050, 124030, 124030, 138981, 182380, 188826, 190040, 190040, 190040	
HNOKM38	1045500	717	5155 - 3530	2892	Gln-12 to His-23.	L0731: 21, L0747: 17, L0776: 16, L0748: 14, L0777: 14, L0752: 13, L0755: 13, L0769: 11, L0750: 11, L0766: 10, L0806: 8, L0770: 7, H0556: 5, L0599: 5, L0774: 4, L0756: 4, L0779: 4, L0753: 4, H0341: 3, L0761: 3, L0764: 3, L0771: 3, L0809: 3, H0144: 3, L0743: 3, L0754: 3, L0757: 3, H0265: 2, S0134: 2, H0306: 2, H0402: 2, H0580: 2, H0393: 2, H0369: 2, H0441: 2, H0013: 2,			

678

HHFUN47	1045842	718	4701 - 2335	2893	Glu-98 to Asp-109, Ser-121 to Ile-128.	L0805: 1, L0606: 1, L0657: 1, L0659: 1, L0528: 1, L0532: 1, L0664: 1, L0665: 1, S0330: 1, S0027: 1, L0740: 1, L0745: 1, L0749: 1, L0758: 1, H0445: 1, L0608: 1, L0595: 1, L0601: 1, S0242: 1, S0276: 1, H0542: 1, H0543: 1, H0423: 1, H0506: 1 and L0600: 1.		
						L0748: 13, L0754: 5, L0746: 5, S0356: 4, H0052: 4, L0803: 4, L0745: 4, L0749: 4, L0731: 4, S0360: 3, H0032: 3, H0646: 3, L0766: 3, L0438: 3, L0439: 3, L0740: 3, L0777: 3, S0222: 2, H0581: 2, H0014: 2, S0003: 2, H0591: 2, L0775: 2, L0664: 2, H0435: 2, L0743: 2, L0485: 2, H0542: 2, H0543: 2, L0600: 2, S6024: 1, S0376: 1, H0331: 1, S0414: 1		

HNTSV18	1045995	719	1 - 504	2894	Ala-3 to Gly-19, Arg-29 to Gly-34, Gly-41 to Pro-51, Tyr-90 to Gly-102, Pro-119 to Trp-124.		H0492: 1, H0486: 1, T0082: 1, H0004: 1, S0010: 1, H0242: 1, L0471: 1, H0510: 1, H0039: 1, H0622: 1, H0553: 1, H0090: 1, H0038: 1, H0040: 1, H0616: 1, H0059: 1, H0654: 1, H0538: 1, S0426: 1, L0637: 1, L0761: 1, L0667: 1, L0794: 1, L0560: 1, L0804: 1, L0776: 1, L0666: 1, H0144: 1, S0374: 1, H0519: 1, H0593: 1, S0122: 1, H0684: 1, H0666: 1, S0330: 1, H0539: 1, S0152: 1, H0521: 1, H0522: 1, L0747: 1, L0779: 1, L0758: 1, L0590: 1, L0591: 1, S0192: 1, S0194: 1 and H0422: 1.	7q21-q22	116860, 126650, 126650, 129900, 133170, 154276.
---------	---------	-----	---------	------	---	--	---	----------	--

						S0212: 1, S0046: 1, H0587: 1, H0024: 1, S0036: 1, H0652: 1, L0649: 1, H0547: 1, H0658: 1 and L0439: 1.			173360, 173360, 602136, 602136, 602136, 602447
HWHGU08	1046137	720	2564 - 1749	2895	Ala-43 to Thr-51, Gly-104 to Arg-112.	S0412: 19, L0803: 10, S0003: 9, S0414: 6, L0770: 6, L0766: 6, L0663: 6, L0754: 6, S0406: 5, L0752: 5, S0222: 4, L0771: 4, H0144: 4, L0439: 4, L0731: 4, S0444: 3, L0717: 3, H0328: 3, L0662: 3, L0655: 3, S0330: 3, H0521: 3, L0748: 3, L0759: 3, H0556: 2, S0356: 2, S0354: 2, H0676: 2, S0408: 2, H0013: 2, H0575: 2, H0050: 2, H0266: 2, S0214: 2, H0428: 2, H0031: 2, H0674: 2, T0067: 2, L0764: 2, L0806: 2, L0805: 2, L0809: 2, L0666: 2, L0664: 2, L0665: 2, H0547: 2, H0435: 2, H0659: 2,	10p11.2-p12	600964, 602026	

682

HE6CR19	1046177	721	870 - 508	2896	Val-3 to Gly-14, Ser-65 to Asn-70.	S0422: 1, S0426: 1, H0529: 1, L0762: 1, L0769: 1, L0796: 1, L0761: 1, L0667: 1, L0772: 1, L0641: 1, L0642: 1, L0643: 1, L0773: 1, L0804: 1, L0775: 1, L0653: 1, L0659: 1, L0783: 1, L0790: 1, T0068: 1, H0519: 1, H0658: 1, H0696: 1, S0206: 1, L0747: 1, L0749: 1, L0755: 1, L0758: 1, H0445: 1, S0436: 1, L0592: 1, H0668: 1, S0026: 1, H0653: 1, H0667: 1, H0136: 1, H0542: 1, S0424: 1 and S0446: 1.	2p22-p21	I20435, I20435, I26600, I35300, I36435, I52790, I52790, I57170, I82601, 278300,
						AR089: 30, AR060: 18, AR039: 17, AR033: 16, AR096: 16, AR104: 13, AR055: 12, AR052: 12, AR053: 8, AR061: 8 L0731: 13, L0748: 11, L0747: 10, L0740: 6, L0763: 5, L0750: 5, L0770: 4, L0766: 4,		

L0555: 4, L0776: 4, S0358: 3, H0100: 3, S0440: 3, L0375: 3, L0664: 3, L0665: 3, L0756: 3, L0752: 3, T0049: 2, S0442: 2, S0045: 2, L0471: 2, T0006: 2, H0413: 2, L0769: 2, L0774: 2, L0775: 2, L0655: 2, L0659: 2, L0382: 2, L0666: 2, L0663: 2, H0658: 2, S0328: 2, S0406: 2, L0439: 2, L0755: 2, L0588: 2, L0591: 2, L0362: 2, S0116: 1, H0483: 1, S0360: 1, S0132: 1, H0393: 1, S0278: 1, H0586: 1, L0021: 1, H0052: 1, H0251: 1, H0544: 1, H0041: 1, H0266: 1, S0214: 1, T0023: 1, H0641: 1, L0772: 1, L0773: 1, L0662: 1, L0386: 1, L0388: 1, L0652: 1, L0653: 1, L0656: 1, L0526: 1, L0518: 1, L0809: 1, S0126: 1,	601071, 601771, 602134
--	------------------------------

HE9EJ82	1046856	722	3 - 173	2897	Glu-12 to Phe-17, Ser-44 to Asn-57.	H0659: 1, S0330: 1, S0380: 1, L0602: 1, H0710: 1, S0027: 1, L0753: 1, L0757: 1, L0759: 1, L0480: 1, H0665: 1, S0276: 1, H0422: 1 and S0384: 1, L0747: 7, H0144: 6, L0748: 6, L0758: 6, L0666: 5, L0750: 5, L0755: 5, S0360: 4, L0646: 4, L0375: 4, L0776: 4, S0358: 3, H0013: 3, H0024: 3, H0087: 3, L0761: 3, L0764: 3, L0775: 3, L0513: 3, L0809: 3, L0532: 3, L0565: 3, L0751: 3, L0752: 3, L0731: 3, L0588: 3, H0170: 2, T0049: 2, S0116: 2, H0255: 2, S0420: 2, S0280: 2, L0471: 2, H0620: 2, H0083: 2, L0483: 2, H0617: 2, L0769: 2, L0637: 2, L0643: 2, L0662: 2, L0497: 2, L0774: 2, L0655: 2, L0657: 2, L0783: 2,	Iq21-q23	104770, 107300, 107670, 110700, 131210, 134638, 135940, 136132, 145001, 146740, 146740, 146740, 146790, 152445, 152445, 159001, 173610, 174000, 176310, 179755, 182860, 182860, 182860,
---------	---------	-----	---------	------	--	---	----------	---

686

							L0806: 1, L0653: 1, L0558: 1, L0659: 1, L0517: 1, L0526: 1, L0384: 1, L0529: 1, L0543: 1, L0647: 1, L0664: 1, L0665: 1, S0428: 1, H0520: 1, H0690: 1, H0684: 1, H0658: 1, H0670: 1, H0672: 1, S0328: 1, S0378: 1, S0380: 1, H0576: 1, L0742: 1, L0744: 1, L0756: 1, L0757: 1, H0445: 1, L0596: 1, L0605: 1, L0593: 1, L0362: 1, H0542: 1, H0543: 1, H0506: 1 and H0352: 1.			
HRADC23	1046980	723	49 - 339	2898			S0250: 2 and H0555: 1, L0748: 40, L0740: 39, L0754: 23, H0556: 19, H0620: 13, L0755: 12, L0731: 12, L0741: 11, S0002: 10, L0766: 10, L0439: 10, H0265: 9, H0013: 9, H0521: 9, L0747: 9, L0758: 8, H0599: 7, L0794: 7, L0751: 7, L0779: 7, L0777: 7, L0752: 7,	3q21		106165, 117700, 117700, 150210, 169600, 180380, 180380, 180380, 190000, 203500, 232050,
HODHS68	1047137	724	516 - 1220	2899	Thr-26 to Ala-44, Pro-55 to His-71, Ser-76 to Cys-83, Asn-92 to Lys-104, Pro-149 to Tyr-158, Ser-208 to Asp-214, Glu-228 to Tyr-234.					

688

L0595: 3, S0026: 3, H0543: 3, H0657: 2, S0116: 2, H0341: 2, S0420: 2, S0354: 2, S0045: 2, H0393: 2, L0717: 2, S0222: 2, H0370: 2, T0039: 2, H0618: 2, H0024: 2, T0010: 2, L0483: 2, H0031: 2, L0142: 2, H0032: 2, T0067: 2, H0268: 2, H0494: 2, H0529: 2, L0775: 2, L0375: 2, L0382: 2, L0809: 2, S0374: 2, L0438: 2, H0547: 2, H0519: 2, H0690: 2, H0660: 2, S0330: 2, S0152: 2, H0134: 2, H0626: 2, S0206: 2, L0786: 2, L0753: 2, L0608: 2, L0593: 2, L0603: 2, S0011: 2, H0668: 2, H0653: 2, S0192: 2, H0422: 2, H0170: 1, T0002: 1, H0716: 1, S6024: 1, S0114: 1, T0049: 1, S0134: 1, H0583: 1, H0638: 1, S0442: 1					
---	--	--	--	--	--

690

	S0440: 1, H0132: 1, S0150: 1, H0641: 1, H0652: 1, L0369: 1, L0762: 1, L0763: 1, L0638: 1, L0372: 1, L0800: 1, L0648: 1, L0767: 1, L0768: 1, L0561: 1, L0381: 1, L0803: 1, L0804: 1, L0651: 1, L0806: 1, L0527: 1, L0657: 1, L0659: 1, L0526: 1, L0544: 1, L0367: 1, L0789: 1, L0791: 1, L0666: 1, L0664: 1, H0520: 1, H0659: 1, H0670: 1, H0648: 1, H0672: 1, S0380: 1, H0518: 1, S0454: 1, S0013: 1, H0696: 1, S0044: 1, S0406: 1, H0555: 1, H0187: 1, S0392: 1, H0627: 1, H0631: 1, S3012: 1, S0390: 1, S3014: 1, S0027: 1, S0028: 1, L0745: 1, L0756: 1, L0780: 1, S0031: 1, S0260: 1, H0707: 1, S0434: 1, L0596: 1				
--	---	--	--	--	--

692

	H0423: 5, H0265: 4, S0420: 4, H0031: 4, H0598: 4, H0038: 4, H0633: 4, L0520: 4, L0770: 4, L0646: 4, L0771: 4, L0649: 4, L0775: 4, H0659: 4, L0779: 4, L0758: 4, H0445: 4, H0422: 4, S0424: 4, H0656: 3, S0132: 3, H0586: 3, H0486: 3, H0327: 3, S0051: 3, H0083: 3, H0687: 3, H0039: 3, L0483: 3, H0169: 3, L0369: 3, L0769: 3, L0657: 3, L0809: 3, L0438: 3, H0520: 3, S0330: 3, H0522: 3, H0665: 3, H0171: 2, H0686: 2, S0040: 2, H0716: 2, H0295: 2, S0134: 2, H0583: 2, H0663: 2, H0402: 2, S0418: 2, L0005: 2, S0442: 2, S0354: 2, S0376: 2, S0046: 2, H0619: 2, H0393: 2, L0717: 2, H0497: 2, H0574: 2, T0114: 2,	
--	--	--

694

695

HMCFK45	1047212	726	121 - 786	2901	Pro-15 to Len-21,	S0142: 1, S0422: 1, L0598: 1, L0631: 1, L0638: 1, L0641: 1, L0764: 1, L0773: 1, L0648: 1, L0363: 1, L0767: 1, L0768: 1, L5574: 1, L0381: 1, L0552: 1, L0774: 1, L0375: 1, L0607: 1, L0634: 1, L0782: 1, S0428: 1, S0374: 1, H0593: 1, H0689: 1, H0435: 1, H0660: 1, H0666: 1, H0648: 1, H0672: 1, S0380: 1, H0709: 1, S0013: 1, H0696: 1, H0704: 1, S0174: 1, S0406: 1, H0436: 1, H0576: 1, H0478: 1, S0432: 1, S3012: 1, S0028: 1, L0777: 1, L0755: 1, L0480: 1, L0597: 1, L0589: 1, L0591: 1, L0592: 1, L0594: 1, L0362: 1, L0601: 1, H0668: 1, H0667: 1, H0136: 1, S0194: 1 and H0008: 1.	L0747: 10, L0758: 6,
---------	---------	-----	-----------	------	-------------------	--	----------------------

					Lys-29 to Asn-39, Arg-110 to Arg-115, Lys-120 to Asn-125, Glu-153 to Leu-158, Pro-173 to Val-181.	L0752: 5, L0774: 4, L0663: 4, L0748: 4, L0751: 4, L0775: 3, L0757: 3, L0759: 3, S0360: 2, S0007: 2, H0687: 2, L0769: 2, L0761: 2, L0766: 2, L0806: 2, L0750: 2, L0777: 2, L0753: 2, L0755: 2, H0254: 1, S0420: 1, S0356: 1, H0392: 1, H0587: 1, L0021: 1, H0046: 1, H0178: 1, H0620: 1, S0050: 1, H0617: 1, H0673: 1, H0616: 1, S0144: 1, S0344: 1, L0637: 1, L0646: 1, L0374: 1, L0771: 1, L0767: 1, L0661: 1, L0629: 1, L0659: 1, L0783: 1, L0367: 1, L0368: 1, L0666: 1, L0664: 1, L0665: 1, H0670: 1, H0672: 1, S0404: 1, H0436: 1, L0740: 1, L0749: 1, L0603: 1, H0422: 1, S0424: 1 and H0677: 1.			
HPIAN63	1047381	727	2 - 595	2902	Lys-1 to Leu-6,	L0777: 13, L0794: 8,			

L0438: 7, L0748: 7,
L0659: 6, L0759: 6,
L0591: 6, H0617: 5,
L0439: 5, L0779: 5,
L0758: 5, L0596: 5,
H0556: 4, H0618: 4,
H0052: 4, L0770: 4,
L0803: 4, L0789: 4,
S0418: 3, H0013: 3,
H0628: 3, H0494: 3,
L0598: 3, L0769: 3,
L0804: 3, L0509: 3,
L0665: 3, H0659: 3,
H0624: 2, H0265: 2,
H0717: 2, S0442: 2,
S0354: 2, S0358: 2,
L0149: 2, S0046: 2,
S0278: 2, H0559: 2,
S0010: 2, S0049: 2,
L0041: 2, H0050: 2,
H0083: 2, H0328: 2,
UNKWN: 2, H0529: 2,
L0662: 2, L0776: 2,
L0655: 2, H0670: 2,
H0660: 2, S0406: 2,
L0747: 2, L0749: 2,
L0752: 2, L0731: 2,
S0436: 2, L0594: 2,
H0542: 2, H0170: 1,
H0171: 1, H0657: 1,

	L0785: 1, H0384: 1, H0671: 1, H0663: 1, L0534: 1, S0356: 1, S0444: 1, S0408: 1, H0549: 1, S0222: 1, H0643: 1, H0632: 1, S0414: 1, H0257: 1, H0486: 1, T0082: 1, T0048: 1, H0318: 1, S0474: 1, H0194: 1, H0263: 1, H0327: 1, H0544: 1, H0546: 1, H0046: 1, H0057: 1, L0163: 1, H0051: 1, S0051: 1, T0010: 1, H0266: 1, H0188: 1, L0052: 1, H0288: 1, S0003: 1, H0604: 1, H0644: 1, H0068: 1, H0316: 1, S0036: 1, H0040: 1, H0164: 1, H0413: 1, H0059: 1, H0100: 1, L0564: 1, H0625: 1, S0448: 1, S0440: 1, S0150: 1, L0637: 1, L0373: 1, L0800: 1, L0374: 1, L0765: 1, L0771: 1, L0766: 1, L0649: 1, L0378: 1, L0805: 1,					
--	--	--	--	--	--	--

						L0493: 1, L0783: 1, L0383: 1, L5622: 1, L0368: 1, L0787: 1, L0666: 1, L0663: 1, H0144: 1, S0374: 1, L0565: 1, H0520: 1, H0547: 1, H0658: 1, H0666: 1, H0672: 1, H0651: 1, S0380: 1, L0741: 1, L0754: 1, L0750: 1, L0756: 1, S0031: 1, L0589: 1, L0590: 1, L0485: 1, L0608: 1, L0604: 1, L0593: 1, H0506: 1 and H0352: 1.		
HNSME49	1047403	728	1295 - 558	2903	Glu-16 to Gly-28, Glu-73 to Glu-78, Asp-94 to Ser-103, Lys-124 to Asp-129, Gln-149 to Arg-155, Ala-190 to Ser-233, Val-240 to Pro-246.	L0794: 6, H0685: 2, S0356: 2, H0090: 2, H0494: 2, L0766: 2, L0803: 2, L0654: 2, L0665: 2, H0435: 2, L0362: 2, H0556: 1, H0384: 1, H0484: 1, S0418: 1, H0497: 1, H0013: 1, S0010: 1, S0346: 1, S0049: 1, H0545: 1, H0375: 1, H0674: 1, L0455: 1, H0413: 1, L0639: 1, L0800: 1, L0376: 1,		

701

HOCQ151	1047483	730	3 - 1016	2905	Gln-15 to Phe-20, Ser-49 to Tyr-54, Glu-111 to Glu-121, Arg-185 to Asp-190, Phe-206 to Asp-212, Glu-309 to Pro-314.	S0028: 1, H0707: 1 and H0543: 1. L0794: 8, H0556: 4, H0046: 4, L0809: 3, L0748: 3, H0341: 2, S0356: 2, S0046: 2, H0100: 2, L0769: 2, L0659: 2, S0328: 2, L0742: 2, H0422: 2, H0265: 1, T0002: 1, S0418: 1, S0420: 1, S0354: 1, S0045: 1, L0717: 1, H0549: 1, S0222: 1, H0586: 1, H0156: 1, T0110: 1, H0150: 1, S0051: 1, H0594: 1, H0266: 1, S0250: 1, H0604: 1, S0364: 1, H0634: 1, H0412: 1, H0494: 1, H0561: 1, H0695: 1, H0529: 1, L0761: 1, L0667: 1, L0772: 1, L0643: 1, L0764: 1, L0771: 1, L0768: 1, L0766: 1, L0803: 1, L0629: 1, L0368: 1, L0788: 1, H0690: 1, H0682: 1, H0660: 1, S0152: 1, S0404: 1,		
---------	---------	-----	----------	------	--	---	--	--

HOPKE15	1047634	731	3 - 434	2906	Met-18 to Tyr-45, Arg-56 to Thr-65, Gln-89 to Glu-107, Pro-109 to Ala-132.	L0747: 1, L0755: 1, H0445: 1 and H0542: 1, H0046: 9, L0766: 8, L0731: 4, S0360: 3, S0408: 3, H0529: 3, L0769: 3, L0608: 3, H0543: 3, H0656: 2, H0341: 2, S0046: 2, S0010: 2, H0318: 2, H0616: 2, S0150: 2, S0002: 2, L0803: 2, L0659: 2, S0374: 2, H0684: 2, S0328: 2, L0750: 2, L0752: 2, L0759: 2, H0170: 1, S0134: 1, H0657: 1, H0637: 1, H0580: 1, H0486: 1, T0040: 1, T0109: 1, L0021: 1, H0575: 1, H0581: 1, H0052: 1, H0266: 1, H0188: 1, S0214: 1, H0328: 1, H0615: 1, H0428: 1, H0039: 1, H0553: 1, H0598: 1, H0163: 1, H0591: 1, H0038: 1, H0040: 1, T0067: 1, H0413: 1, S0464: 1, S0440: 1, L0598: 1, L0772: 1,		
---------	---------	-----	---------	------	---	---	--	--

704

705

								S0176: 1, L0748: 1, L0749: 1, L0731: 1 and L0758: 1.			
HOFAE31	1047670	734	2 - 220	2909				H0414: 2			
HCLCX62	1047716	735	129 - 437	2910				Glu-1 to Leu-8, Arg-38 to Cys-49. Ala-1 to Leu-7, Ser-18 to Lys-23.			
								S0136: 25, L0665: 4, S0001: 1, H0662: 1, H0632: 1, H0594: 1, H0188: 1, H0598: 1, H0379: 1, S0294: 1, L0764: 1, L0521: 1, L0803: 1, L0805: 1, L0493: 1, L0514: 1, L0515: 1, L0659: 1, H0689: 1, H0683: 1, H0670: 1, H0672: 1, S0328: 1, H0539: 1, H0478: 1, L0777: 1, L0731: 1 and L0599: 1.			
HNOAC93	1047820	736	826 - 554	2911				Pro-12 to Pro-20, Leu-24 to Ser-31, Pro-34 to Pro-82, Arg-84 to Pro-91. AR053: 18, AR089: 16, AR096: 15, AR033: 14, AR039: 12, AR060: 11, AR104: 11, AR055: 10, AR061: 6 H0251: 6, H0412: 2, H0295: 1, S0114: 1, H0657: 1, H0255: 1, H0663: 1, H0619: 1, S0222: 1, H0392: 1, H0333: 1, H0486: 1,	16p13.3	141750, 141800, 141800, 141800, 141800, 141850, 141850, 141850, 141850, 141850, 156850,	

HMEJA45	1047848	737	1 - 399	2912	Phe-4 to Arg-11, Ala-16 to Ser-22, Cys-31 to Cys-39.	H0635: 1, H0318: 1, H0050: 1, H0051: 1, S0388: 1, S0051: 1, H0239: 1, H0688: 1, H0644: 1, H0181: 1, H0617: 1, H0606: 1, S0438: 1, L0769: 1, L0761: 1, L0803: 1, H0547: 1, S0126: 1, H0658: 1, H0672: 1, H0651: 1, S0404: 1, S0406: 1, H0436: 1, L0748: 1, L0751: 1 and S0276: 1. AR060: 5, AR061: 3, AR104: 3, AR089: 3, AR096: 2, AR055: 2 S0206: 5, H0413: 3, S0028: 3, H0170: 2, S0212: 2, H0546: 2, H0266: 2, H0171: 1, S0040: 1, H0580: 1, H0208: 1, H0411: 1, H0437: 1, H0453: 1, H0427: 1, H0051: 1, S0051: 1, H0355: 1, S0003: 1, H0031: 1, H0412: 1, S0188: 1, S0390: 1, S3014: 1, S0027: 1 and S0031: 1.		186580, 191092, 600140, 600273, 601313, 601785
---------	---------	-----	---------	------	--	---	--	---

HLDAS11	1047937	738	224 - 958	2913	Asn-33 to Glu-41, Ala-58 to Ser-69, Ser-77 to Pro-84, Pro-97 to Pro-102, Ile-121 to Gln-128.	H0693: 636, H0637: 29, H0551: 16, L0748: 11, L0777: 7, H0069: 5, L0666: 4, L0157: 3, H0641: 3, L0766: 3, L0665: 3, L0758: 3, H0510: 2, H0615: 2, H0509: 2, L0663: 2, H0521: 2, L0751: 2, L0755: 2, H0542: 2, H0650: 1, H0657: 1, S0356: 1, S0376: 1, S0360: 1, H0431: 1, H0013: 1, H0618: 1, S0010: 1, H0581: 1, T0001: 1, H0052: 1, H0251: 1, H0596: 1, H0373: 1, H0083: 1, H0271: 1, S0250: 1, S0003: 1, S0214: 1, H0622: 1, H0553: 1, H0674: 1, H0038: 1, H0040: 1, H0272: 1, H0059: 1, T0041: 1, H0646: 1, L0598: 1, L0662: 1, L0768: 1, L0649: 1, L0774: 1, L0805: 1, L0776: 1, L0657: 1, L0517: 1, L0382: 1, L0791: 1,		
---------	---------	-----	-----------	------	--	---	--	--

																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						</
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	----

710

711

712

					Glu-154 to Glu-161, L0758: 5, L0766: 4, Glu-270 to Asn-278, H0620: 3, H0038: 3, Glu-360 to Trp-371, L0794: 3, S0358: 2, Asp-440 to Asp-445, H0687: 2, H0135: 2, L0508: 2, L0809: 2, Ser-450 to Leu-456. L0787: 2, L0665: 2, H0520: 2, L0439: 2, H0650: 1, H0657: 1, S0222: 1, H0574: 1, H0318: 1, H0581: 1, S0049: 1, H0545: 1, H0566: 1, H0622: 1, H0033: 1, H0181: 1, H0617: 1, H0165: 1, H0264: 1, H0059: 1, L0564: 1, H0561: 1, S0150: 1, H0647: 1, L0769: 1, L0644: 1, L0768: 1, L0774: 1, L0375: 1, L0806: 1, L0509: 1, L0514: 1, L0510: 1, L0789: 1, L0438: 1, H0435: 1, H0660: 1, H0648: 1, H0696: 1, H0436: 1, H0627: 1 and L0731: 1.			
HCFCS40	1048427	742	2 - 1330	2917	Leu-21 to Gly-27, Pro-73 to Leu-83.	AR060: 241, AR033: 229, AR055: 211, AR061: 142, AR089: 103, AR053: 85,	3p21.3	116806, 120120, 120120, 120120,

AR052: 62, AR104: 48, AR096: 33, AR039: 25	120436, 120436, 120436, 138320, 168468, 182280, 600163
S0474: 21, H0683: 7, L0748: 7, H0251: 6, L0777: 5, S0422: 4, L0764: 4, L0766: 4, L0740: 4, L0754: 4, S0418: 3, H0046: 3, H0553: 3, H0521: 3, L0779: 3, L0752: 3, L0731: 3, L0757: 3, H0422: 3, H0713: 2, H0717: 2, H0733: 2, S0476: 2, H0441: 2, H0575: 2, H0428: 2, H0494: 2, L0659: 2, L0666: 2, H0547: 2, H0519: 2, L0439: 2, L0745: 2, L0749: 2, L0756: 2, L0758: 2, L0485: 2, S0026: 2, S0384: 2, H0716: 1, S0212: 1, H0661: 1, S0356: 1, S0444: 1, S0045: 1, S0046: 1, S0132: 1, H0645: 1, H0406: 1, S6022: 1, H0431: 1, H0587: 1, H0486: 1, T0040: 1,	

715

Lys-144 to Phe-156, Phe-167 to Thr-181, Glu-202 to Asp-207, Glu-262 to Ser-277.	L0759: 5, L0588: 5, H0542: 5, S0360: 4, S0045: 4, H0486: 4, H0012: 4, S0372: 4, S0144: 4, L0755: 4, L0731: 4, L0758: 4, L0596: 4, S0114: 3, H0657: 3, S0132: 3, H0640: 3, H0545: 3, H0266: 3, H0413: 3, H0494: 3, L0598: 3, H0529: 3, L0521: 3, L0364: 3, L0657: 3, L0783: 3, L0809: 3, L0666: 3, L0665: 3, H0547: 3, H0519: 3, S0126: 3, H0659: 3, H0670: 3, L0777: 3, S0436: 3, L0595: 3, H0395: 2, H0265: 2, T0049: 2, H0484: 2, H0402: 2, H0125: 2, S0418: 2, S0408: 2, S0410: 2, H0580: 2, T0109: 2, H0575: 2, H0581: 2, H0546: 2, H0373: 2, H0510: 2, H0708: 2, H0412: 2, H0396: 2, L0763: 2, L0769: 2, L0774: 2,					
--	--	--	--	--	--	--

		L0805: 2, L0653: 2, L0776: 2, L0655: 2, L0513: 2, L0656: 2, L0558: 2, L0517: 2, H0666: 2, H0672: 2, S0328: 2, S0044: 2, S0406: 2, L0751: 2, L0747: 2, L0757: 2, L0597: 2, L0581: 2, L0599: 2, L0604: 2, S0026: 2, H0653: 2, H0422: 2, H0506: 2, H0556: 1, T0002: 1, H0686: 1, H0295: 1, H0583: 1, H0650: 1, S0298: 1, H0483: 1, H0305: 1, S0420: 1, S0356: 1, H0675: 1, S0046: 1, S0022: 1, H0432: 1, H0392: 1, H0586: 1, H0497: 1, H0333: 1, H0331: 1, H0250: 1, S0280: 1, L0021: 1, H0599: 1, H0042: 1, T0082: 1, S0010: 1, T0048: 1, H0052: 1, H0597: 1, L0738: 1, H0178: 1, H0123: 1, H0081: 1, L0471: 1, H0620: 1,				
--	--	--	--	--	--	--

718

					Arg-215 to Tyr-224, Gly-240 to Lys-247, Pro-279 to Gly-286, Leu-295 to Gln-308, Pro-326 to Tyr-331, Thr-343 to Arg-349, Tyr-354 to Ala-360, Lys-369 to Asp-375, Ser-426 to Asp-432.	H0295: 2, H0628: 2, L0776: 2, S3014: 2, L0439: 2, S0212: 1, S0418: 1, S0420: 1, H0734: 1, S0046: 1, S0476: 1, H0497: 1, T0040: 1, H0544: 1, H0545: 1, H0024: 1, S0003: 1, H0644: 1, H0038: 1, H0040: 1, H0413: 1, S0294: 1, H0633: 1, S0144: 1, L0372: 1, L0805: 1, L0654: 1, L5623: 1, L4501: 1, H0144: 1, L0438: 1, S0126: 1, H0683: 1, H0672: 1, H0539: 1, H0521: 1, H0631: 1, S0037: 1, S0434: 1, L0588: 1, L0599: 1, L0601: 1 and H0665: 1.	H0295: 2, H0628: 2, L0776: 2, S3014: 2, L0439: 2, S0212: 1, S0418: 1, S0420: 1, H0734: 1, S0046: 1, S0476: 1, H0497: 1, T0040: 1, H0544: 1, H0545: 1, H0024: 1, S0003: 1, H0644: 1, H0038: 1, H0040: 1, H0413: 1, S0294: 1, H0633: 1, S0144: 1, L0372: 1, L0805: 1, L0654: 1, L5623: 1, L4501: 1, H0144: 1, L0438: 1, S0126: 1, H0683: 1, H0672: 1, H0539: 1, H0521: 1, H0631: 1, S0037: 1, S0434: 1, L0588: 1, L0599: 1, L0601: 1 and H0665: 1.		138040, 153455, 159000, 179095, 181460, 192974, 192974, 600807, 601596, 601692, 601692, 601692, 602089, 602121, 602460
HVVCH35	1048658	745	1107 - 91	2920	Ser-45 to Pro-51.	L0769: 5, L0759: 4, H0402: 3, S0376: 3, H0424: 3, L0749: 3, S0222: 2, L0535: 2, L0774: 2, L0806: 2, L0384: 2, L0666: 2, H0265: 1, S0218: 1, H0484: 1, S0354: 1,	22q13.33		

720

Leu-173 to Tyr-180,	S0406: 4, L0779: 4, L0596: 4, S0444: 3, T0109: 3, H0575: 3, S0003: 3, L0805: 3, L0776: 3, L0809: 3, L0664: 3, L0665: 3, S0328: 3, H0696: 3, L0439: 3, L0755: 3, L0731: 3, H0543: 3, H0657: 2, H0662: 2, S0420: 2, S0356: 2, S0358: 2, S0408: 2, S0007: 2, H0415: 2, S0010: 2, H0046: 2, H0014: 2, H0083: 2, H0032: 2, H0674: 2, H0708: 2, H0090: 2, H0038: 2, H0272: 2, H0429: 2, H0494: 2, S0372: 2, S0438: 2, H0509: 2, L0598: 2, L0766: 2, L0649: 2, L0774: 2, L0775: 2, L0543: 2, L5622: 2, L0663: 2, H0144: 2, S0378: 2, L0602: 2, H0522: 2, S0028: 2, L0758: 2, L0588: 2, L0599: 2, S0026: 2, S0424: 2, H0170: 1,
Arg-190 to Ala-197,	

	L0615: 1, H0717: 1, S0114: 1, S0116: 1, H0341: 1, S0212: 1, H0663: 1, H0458: 1, S0354: 1, S0376: 1, H0580: 1, H0730: 1, H0733: 1, S0045: 1, S0046: 1, H0619: 1, H0393: 1, L0717: 1, H0351: 1, H0369: 1, H0549: 1, H0431: 1, H0409: 1, H0586: 1, H0587: 1, H0574: 1, H0632: 1, H0486: 1, T0039: 1, L0586: 1, T0060: 1, H0250: 1, H0635: 1, H0156: 1, H0042: 1, H0274: 1, T0048: 1, H0581: 1, H0421: 1, H0251: 1, L0040: 1, H0545: 1, H0009: 1, H0123: 1, H0373: 1, S0214: 1, H0328: 1, H0031: 1, H0553: 1, H0598: 1, H0534: 1, H0135: 1, H0591: 1, H0616: 1, H0063: 1, H0264: 1, F0412: 1, H0059: 1, F0100: 1, I0475: 1
--	---

723

							AR053: 0, AR055: 0, AR039: 0 H0171: 1, S0444: 1 and S0002: 1.			
HSYBI49	1049151	748	2 - 805	2923			AR089: 15, AR096: 14, AR060: 12, AR039: 10, AR104: 8, AR053: 8, AR055: 4, AR033: 4, AR061: 3, AR052: 2 L0777: 17, H0521: 11, L0747: 6, L0649: 5, H0586: 4, L0664: 4, L0748: 4, L0749: 4, H0661: 3, S0132: 3, H0587: 3, H0509: 3, L0637: 3, L0662: 3, L0806: 3, L0665: 3, L0779: 3, S0358: 2, L0717: 2, T0040: 2, H0014: 2, H0494: 2, S0438: 2, L0451: 2, H0547: 2, H0435: 2, H0658: 2, H0648: 2, H0672: 2, L0602: 2, S0436: 2, H0543: 2, L0448: 1, S0476: 1, H0431: 1, H0592: 1, T0114: 1, L0021: 1, T0010: 1, H0188: 1,			

HTXSN37	1049372	749	1061 - 1864	2924	Thr-34 to Gln-47, Pro-82 to Ser-104, His-120 to Asn-126, His-129 to Pro-152, Cys-214 to Lys-220, Lys-261 to Ser-268.	<p>T0023: 1, L0483: 1, H0551: 1, S0352: 1, H0633: 1, L0763: 1, L0761: 1, L0646: 1, L0648: 1, L4500: 1, L5568: 1, L0774: 1, L0775: 1, L0525: 1, L0653: 1, L0657: 1, H0690: 1, H0684: 1, S0378: 1, H0479: 1, L0754: 1, L0755: 1, L0759: 1, L0362: 1 and S0242: 1.</p> <p>S0422: 31, L0748: 16, L0803: 12, H0580: 11, H0615: 10, L0754: 9, L0596: 9, S0360: 8, L0805: 8, L0779: 8, L0663: 7, L0745: 7, S0358: 6, H0271: 6, L0766: 6, L0809: 6, S0406: 6, L0777: 6, S0007: 5, H0046: 5, H0024: 5, L0770: 5, L0761: 5, L0771: 5, L0662: 5, L0657: 5, L0666: 5, H0710: 5, H0436: 5, L0750: 5, H0542: 5, S0444: 4, S0476: 4, H0547: 4,</p>		
---------	---------	-----	----------------	------	---	---	--	--

726

			L0772: 2, L0648: 2, L0806: 2, L0438: 2, H0520: 2, H0670: 2, H0660: 2, H0672: 2, H0651: 2, S0328: 2, H0539: 2, S0378: 2, S0136: 2, S3012: 2, S3014: 2, S0206: 2, L0751: 2, L0746: 2, L0752: 2, S0436: 2, L0608: 2, L0601: 2, H0423: 2, H0171: 1, H0265: 1, H0556: 1, H0225: 1, H0686: 1, H0738: 1, H0657: 1, H0484: 1, H0661: 1, H0662: 1, H0589: 1, S0356: 1, S0376: 1, S0410: 1, T0008: 1, H0733: 1, H0208: 1, S0046: 1, H0640: 1, L0717: 1, H0351: 1, S0278: 1, H0550: 1, H0431: 1, H0461: 1, H0409: 1, H0299: 1, H0601: 1, H0333: 1, H0486: 1, H0190: 1, H0635: 1, S0010: 1, H0318: 1, H0007: 1, H0263: 1, H0596: 1,				
--	--	--	--	--	--	--	--

	H0327: 1, H0544: 1, L0471: 1, H0051: 1, H0179: 1, H0687: 1, S0214: 1, H0252: 1, H0688: 1, H0039: 1, H0031: 1, H0032: 1, H0674: 1, H0124: 1, H0316: 1, H0591: 1, H0040: 1, H0063: 1, H0551: 1, H0059: 1, L0564: 1, T0041: 1, H0560: 1, S0440: 1, S0144: 1, S0142: 1, L0598: 1, H0529: 1, L0520: 1, L0640: 1, L0631: 1, L0638: 1, L0796: 1, L5566: 1, L0667: 1, L0643: 1, L0521: 1, L0767: 1, L5574: 1, L0375: 1, L0523: 1, L0653: 1, L0606: 1, L0807: 1, L0527: 1, L0512: 1, L0659: 1, L0517: 1, L0542: 1, L0382: 1, L0530: 1, L0787: 1, L0789: 1, L0790: 1, L0791: 1, L0664: 1, S0052: 1, H0519: 1, H0593: 1, S0122: 1,
--	--

729

			L0747: 2, L0731: 2, L0587: 2, L0591: 2, L0362: 2, S0192: 2, H0624: 1, T0049: 1, H0663: 1, H0402: 1, H0638: 1, S0376: 1, S0444: 1, S0360: 1, H0208: 1, S6026: 1, H0392: 1, H0635: 1, L0021: 1, H0575: 1, H0581: 1, H0052: 1, H0596: 1, H0597: 1, L0738: 1, H0544: 1, H0024: 1, S0051: 1, H0428: 1, H0622: 1, H0031: 1, H0553: 1, H0644: 1, H0169: 1, H0090: 1, H0038: 1, H0040: 1, H0100: 1, H0494: 1, H0560: 1, H0625: 1, H0646: 1, S0344: 1, H0538: 1, S0422: 1, H0529: 1, L0646: 1, L0662: 1, L0794: 1, L0387: 1, L0766: 1, L0804: 1, L0776: 1, L0527: 1, L0647: 1, L0665: 1, L0438: 1, L0352: 1, H0435: 1, H0658: 1,					
--	--	--	--	--	--	--	--	--

								H0660: 1, H0672: 1, S0330: 1, S0378: 1, H0518: 1, H0521: 1, H0522: 1, L0779: 1, S0031: 1, H0444: 1, L0589: 1, L0592: 1 and L0608: 1.			
HFPDO90	1049644	751	456 - 202	2926	Asp-74 to His-85.			S0134: 1, S0222: 1, L0774: 1, L0776: 1 and L0366: 1.	5q31		121050, 131400, 138040, 153455, 159000, 179095, 181460, 192974, 192974, 600807, 601596, 601692, 601692, 601692, 601692, 602089, 602121, 602460
HVV/CB79	1050102	752	195 - 1205	2927	Gln-29 to Cys-39, Val-46 to Ser-52, Asn-58 to Gly-65, Cys-68 to His-82, Tyr-84 to Gly-94,			L0659: 19, S0476: 18, H0271: 18, S0152: 15, H0521: 12, L0666: 7, S0132: 6, H0494: 5, L0754: 5, L0601: 5,	10q24		157640, 174900, 180250, 186770, 236730,

			Leu-122 to Trp-138, Ala-158 to Leu-170, Gly-175 to Arg-182, Tyr-203 to Ser-210, Gly-246 to Met-258, Arg-288 to Gln-296.	S0360: 4, L0771: 4, L0653: 4, L0751: 4, H0295: 3, H0486: 3, H0635: 3, H0416: 3, H0615: 3, L0662: 3, S0428: 3, L0748: 3, L0747: 3, L0731: 3, H0661: 2, S0376: 2, H0437: 2, H0587: 2, H0485: 2, T0039: 2, H0318: 2, H0545: 2, H0620: 2, H0266: 2, H0090: 2, H0623: 2, L0763: 2, L0646: 2, L0642: 2, L0774: 2, L0775: 2, L0378: 2, L0806: 2, L0664: 2, S0374: 2, H0519: 2, S0406: 2, L0439: 2, L0779: 2, L0755: 2, L0604: 2, L0698: 2, H0149: 1, H0686: 1, H0713: 1, S0212: 1, H0255: 1, S0408: 1, H0637: 1, S0046: 1, H0411: 1, S0278: 1, H0599: 1, H0251: 1, H0457: 1, H0024: 1, H0014: 1, H0328: 1, H0553: 1, H0644: 1,	271245, 278000, 278000, 600095, 600512, 601107, 601130, 602082
--	--	--	--	--	---

HDPGR19	1050167	753	2 - 670	2928	Ala-32 to Arg-48, Cys-138 to Ser-147, Lys-161 to Glu-166, Pro-179 to Asn-189.	H0598: 1, H0634: 1, H0268: 1, H0056: 1, L0564: 1, S0344: 1, S0002: 1, S0426: 1, L0770: 1, L0372: 1, L0641: 1, L0645: 1, L0648: 1, L0767: 1, L0649: 1, L0389: 1, L0388: 1, L0803: 1, L0654: 1, L0793: 1, L0665: 1, S0052: 1, S0053: 1, S0216: 1, H0658: 1, H0672: 1, H0518: 1, H0522: 1, H0696: 1, L0750: 1, L0752: 1, H0445: 1, S0436: 1, L0596: 1, S0458: 1 and H0506: 1.		
						AR055: 2, AR033: 1, AR089: 1, AR060: 1, AR096: 1, AR039: 0, AR061: 0, AR052: 0, AR053: 0 H0521: 36, L0754: 20, L0748: 13, L0740: 12, L0439: 9, S0440: 8, H0522: 8, L0777: 8, H0580: 7, H0641: 7, L0659: 7, S0126: 7, S0436: 7, H0638: 6,		

734

			L0649: 2, L0803: 2, L0653: 2, L0776: 2, L0791: 2, L0666: 2, S0374: 2, L0438: 2, H0547: 2, H0593: 2, H0659: 2, H0670: 2, S0152: 2, H0696: 2, H0436: 2, L0751: 2, L0750: 2, L0752: 2, L0591: 2, L0581: 2, L0593: 2, L0362: 2, S0242: 2, H0170: 1, H0556: 1, H0686: 1, H0713: 1, H0294: 1, H0583: 1, L0415: 1, L0808: 1, L0785: 1, H0663: 1, S0418: 1, S0442: 1, S0358: 1, H0637: 1, H0735: 1, H0733: 1, H0339: 1, S0132: 1, H0393: 1, H0411: 1, S0278: 1, S0222: 1, H0601: 1, H0586: 1, H0587: 1, H0333: 1, H0331: 1, L0586: 1, H0013: 1, H0250: 1, H0069: 1, H0505: 1, S0474: 1, H0052: 1, H0596: 1, H0546: 1, H0545: 1,						
--	--	--	--	--	--	--	--	--	--

736

HVVDX63	1050256	754	2483 - 1299	2929	Ala-1 to Ser-19, Gln-50 to Ala-69, Lys-113 to Lys-120, Thr-132 to Trp-147, Glu-162 to Gly-172, Leu-185 to Ser-219, Thr-226 to Tyr-234, Pro-288 to Pro-304, Glu-312 to Lys-324, Cys-344 to Gly-355.	L0592: 1, S0026: 1, I10667: 1, S0192: 1, S0194: 1, S0196: 1, I10542: 1, H0423: 1, H0422: 1, S0458: 1, H0352: 1 and H0712: 1. H0556: 10, L0758: 9, L0777: 7, I10422: 7, I10271: 6, H0265: 5, I10179: 5, H0634: 5, L0747: 5, L0766: 4, L0664: 4, L0751: 4, H0542: 4, H0423: 4, H0657: 3, S0476: 3, I10069: 3, H0641: 3, L0761: 3, H0555: 3, I10436: 3, L0757: 3, H0222: 2, S0132: 2, I10486: 2, I10553: 2, H0551: 2, L0631: 2, L0769: 2, L0667: 2, L0772: 2, L0662: 2, L0378: 2, L0809: 2, S0052: 2, H0658: 2, H0672: 2, S0328: 2, I10518: 2, L0749: 2, L0750: 2, H0445: 2, L0596: 2, L0362: 2, H0653: 2, H0220: 1, H0713: 1, S0218: 1.		
---------	---------	-----	----------------	------	---	--	--	--

738

HNOJA87	1050282	755	616 - 2415	2930	Ser-35 to Glu-40, Leu-43 to Lys-63, Gln-88 to Tyr-97, Gln-156 to Glu-161, Val-218 to Phe-223, Ser-229 to Cys-237, Phe-323 to Ala-332, Phe-334 to Ser-339, Glu-357 to Gly-362, Ser-382 to Pro-391, Ser-403 to His-411, Asp-414 to Leu-425, Pro-429 to Arg-444, Ser-481 to Asn-486, Asp-495 to Lys-503, Asn-508 to Leu-514, Lys-528 to Ser-544, Asp-565 to Tyr-576, Leu-578 to Gly-584, Lys-591 to Asn-600.	L0731: 1, S0196: 1 and H0506: 1, L0758: 8, L0439: 7, S0003: 6, L0602: 6, L0665: 5, S0330: 5, H0521: 5, L0755: 5, L0731: 5, L0483: 4, L0598: 4, L0766: 4, L0775: 4, L0666: 4, L0748: 4, H0423: 4, H0170: 3, H0580: 3, H0441: 3, H0687: 3, S0022: 3, L0659: 3, H0144: 3, H0547: 3, L0740: 3, L0751: 3, L0596: 3, H0411: 2, H0250: 2, S0280: 2, H0575: 2, H0051: 2, H0083: 2, H0031: 2, UNKWN: 2, L0763: 2, L0776: 2, L0664: 2, S0148: 2, L0438: 2, H0660: 2, S0328: 2, S0380: 2, L0747: 2, L0777: 2, L0590: 2, L0592: 2, L0581: 2, L0594: 2, L0362: 2, S0194: 2, H0624: 1, T0002: 1, H0140: 1, H0685: 1, S0040: 1,	2q31	100690, 120180, 120180, 120180, 120180, 120190, 142989, 156232, 178600, 266100, 600258, 600321
---------	---------	-----	------------	------	--	---	------	---

			S0134: 1, H0583: 1, S0116: 1, S0001: 1, H0483: 1, H0664: 1, S0420: 1, S0354: 1, S0358: 1, S0360: 1, H0431: 1, H0600: 1, H0592: 1, H0586: 1, H0587: 1, T0114: 1, H0013: 1, H0427: 1, H0098: 1, H0004: 1, S0010: 1, H0581: 1, H0421: 1, H0596: 1, H0545: 1, H0050: 1, L0471: 1, H0024: 1, H0014: 1, H0373: 1, H0375: 1, H0266: 1, H0428: 1, H0070: 1, H0039: 1, H0644: 1, H0032: 1, H0598: 1, H0591: 1, H0040: 1, H0616: 1, H0551: 1, T0067: 1, H0647: 1, L0770: 1, L0769: 1, L0638: 1, L0646: 1, L0764: 1, L0648: 1, L0521: 1, L0549: 1, L0389: 1, L0806: 1, L0652: 1, L0655: 1, L0607: 1, L0526: 1, L0783: 1, S0053: 1,					
--	--	--	--	--	--	--	--	--

HTPGI65	1050419	756	56 - 1273	2931	<p>Ser-55 to Thr-60, Glu-97 to Ser-103, Thr-164 to Glu-170, Gly-192 to Gly-197, Leu-204 to Ser-218, Ala-238 to Ser-250, Asp-265 to Tyr-292, Gly-298 to Gly-307, Gly-351 to Met-359, Phe-389 to Glu-400.</p>	<p>T0068: 1, H0684: 1, H0670: 1, S0378: 1, H0518: 1, H0696: 1, S0406: 1, H0436: 1, L0754: 1, L0750: 1, L0753: 1, L0759: 1, H0445: 1, S0434: 1, L0599: 1, L0608: 1, L0366: 1, S0026: 1, H0667: 1, S0242: 1, H0422: 1 and S0424: 1, S0444: 13, L0751: 12, S0358: 11, L0659: 11, S0436: 10, S0442: 8, S0410: 8, S0406: 8, S0434: 8, L0662: 6, H0435: 6, S0440: 5, L0657: 5, S0354: 4, T0023: 4, L0764: 4, L0771: 4, L0666: 4, H0690: 4, L0743: 4, L0754: 4, L0601: 4, H0046: 3, H0615: 3, H0617: 3, H0032: 3, H0647: 3, L0372: 3, L0665: 3, H0593: 3, L0744: 3, L0748: 3, H0663: 2, S0376: 2, S0408: 2, H0036: 2, H0622: 2, L0483: 2.</p>	145260, 600759, 601975
---------	---------	-----	-----------	------	---	--	------------------------------

742

							H0670: 1, H0672: 1, S0328: 1, S0380: 1, S0404: 1, H0478: 1, S0432: 1, L0752: 1, L0591: 1, L0608: 1 and H0506: 1.			
HHFGN14	1050536	757	1791 - 2738	2932	Pro-7 to Ala-17, Pro-28 to Gln-38, Asp-58 to Ser-78, Phe-113 to Asp-120, Tyr-171 to Gln-177, Gln-237 to Gln-246.		S0280: 3, H0581: 3, H0622: 3, H0690: 3, L0751: 3, H0506: 3, S0356: 2, H0670: 2, H0254: 1, S0046: 1, H0411: 1, H0438: 1, H0600: 1, H0632: 1, H0635: 1, H0599: 1, H0009: 1, H0050: 1, H0023: 1, T0010: 1, H0375: 1, H0687: 1, H0039: 1, S0364: 1, H0509: 1, L0527: 1, S0052: 1, H0693: 1, L0438: 1, H0593: 1, H0689: 1, H0660: 1, S0378: 1, H0555: 1, S0392: 1, S0390: 1, S0037: 1 and S0196: 1.	12q13	10777, 123940, 139350, 139350, 148040, 148041, 148043, 148070, 231550, 600194, 600231, 600536, 600808, 600956, 601284, 601769, 601769, 601928, 602116, 602153.	
HTAIN76	1050553	758	83 - 1300	2933	Pro-19 to Ala-25, Pro-30 to Gly-50, Arg-66 to Gly-78.		L0740: 12, L0653: 6, L0665: 6, H0150: 5, L0439: 5, H0688: 4, L0771: 4, L0659: 4,			

L0809: 4, L0751: 4, L0747: 4, L0749: 4, L0779: 4, L0601: 4, S0420: 3, H0486: 3, H0620: 3, H0494: 3, L0662: 3, L0757: 3, S0040: 2, H0662: 2, S0007: 2, H0549: 2, S0222: 2, H0009: 2, H0123: 2, H0024: 2, H0606: 2, H0634: 2, H0413: 2, H0100: 2, L0769: 2, L0794: 2, L0649: 2, L0803: 2, L0655: 2, L0382: 2, L0666: 2, L0731: 2, L0758: 2, L0759: 2, L0605: 2, H0170: 1, T0049: 1, H0663: 1, L0005: 1, S0045: 1, S0046: 1, H0619: 1, H0550: 1, S0220: 1, L0468: 1, H0587: 1, H0643: 1, H0574: 1, H0632: 1, H0635: 1, T0048: 1, H0505: 1, H0597: 1, H0546: 1, H0545: 1, H0046: 1, N0007: 1, H0188: 1, H0622: 1, T0023: 1,
--

745

H0123: 2, L0471: 2,	301590,
H0428: 2, H0616: 2,	302060,
H0087: 2, L0763: 2,	302060,
L0764: 2, L0766: 2,	302060,
L0375: 2, L0666: 2,	302060,
H0659: 2, L0740: 2,	302960,
L0758: 2, L0759: 2,	303700,
H0445: 2, L0599: 2,	303800,
H0170: 1, H0686: 1,	303900,
H0344: 1, L0002: 1,	304800,
H0657: 1, H0306: 1,	305900,
S0356: 1, S0358: 1,	305900,
S0376: 1, T0008: 1,	305900,
S0132: 1, H0455: 1,	306700,
L0021: 1, L0022: 1,	306995,
H0263: 1, H0572: 1,	308310,
H0050: 1, H0620: 1,	308840,
H0051: 1, H0083: 1,	308840,
H0375: 1, S6028: 1,	308840,
H0687: 1, S0022: 1,	309200,
H0615: 1, H0688: 1,	309548,
H0031: 1, H0708: 1,	309620,
H0068: 1, H0038: 1,	309900,
H0264: 1, H0272: 1,	310300,
T0042: 1, H0561: 1,	310400,
S0144: 1, L0598: 1,	310460,
H0529: 1, L0631: 1,	310460,
L0770: 1, L0637: 1,	311300,
L0800: 1, L0794: 1,	311510,
L0806: 1, L0382: 1,	314300,

HMEKJ82	1050767	760	1 - 597	2935	Arg-10 to Lys-24, Phe-50 to Arg-57.	L0809: 1, L0787: 1, L0665: 1, H0144: 1, S0374: 1, H0666: 1, S0380: 1, H0696: 1, S0012: 1, S0032: 1, L0747: 1, L0749: 1, L0777: 1, L0752: 1, L0753: 1, L0757: 1, S0434: 1, S0011: 1, S0276: 1 and H0542: 1.	314400
						AR089: 2, AR096: 1, AR104: 1, AR060: 0, AR061: 0, AR055: 0 S0414: 6, L0754: 6, L0803: 4, H0032: 3, L0774: 3, L0665: 3, L0752: 3, S0418: 2, L0005: 2, H0580: 2, H0431: 2, H0553: 2, H0673: 2, S0422: 2, L0598: 2, L0666: 2, L0748: 2, S0436: 2, L0589: 2, L0603: 2, S0001: 1, L0717: 1, H0415: 1, H0013: 1, H0635: 1, S0280: 1, H0581: 1, S0051: 1, H0266: 1, S0214: 1, H0428: 1, H0598: 1, H0616: 1, S0438: 1,	

HOFNX17	1050969	761	47 - 604	2936	Ile-13 to Gly-19, Thr-21 to Gln-28, Lys-38 to Ser-45, Gln-62 to Tyr-68, Val-72 to Gly-77, Pro-87 to Ser-93, Thr-117 to Gln-126, Gln-133 to Leu-139.	S0440: 1, H0641: 1, H0633: 1, H0646: 1, UNKWN: 1, L0646: 1, L0662: 1, L0766: 1, L0659: 1, L0783: 1, L0809: 1, L0790: 1, L0532: 1, H0658: 1, H0521: 1, S0406: 1, L0751: 1, L0779: 1, L0599: 1, S0011: 1, H0423: 1, H0422: 1, S0042: 1 and H0506: 1.	9q11-q22	229600, 264300, 600542, 602014, 602088
HAOSY21	1051095	762	153 - 425	2937	Asn-26 to Gly-31, Cys-44 to Asp-50, Gln-85 to Gln-91.	H0657: 2, H0686: 1, H0341: 1, L0493: 1, H0144: 1, H0689: 1, L0757: 1 and L0596: 1.		
HMWDB39	1051115	763	2 - 598	2938	Ala-1 to Gly-7, Ser-20 to Gly-36, Glu-107 to Thr-112, Glu-114 to Pro-119.	S0474: 13, L0758: 13, L0439: 11, L0754: 11, L0752: 10, H0581: 9, L0766: 9, L0740: 9, L0769: 8, H0423: 8, H0547: 7, L0750: 7.		

	L0777: 7, H0013: 6, H0445: 6, L0599: 6, L0005: 5, S0358: 5, S0360: 5, S0414: 5, H0575: 5, L0776: 5, S0126: 5, H0648: 5, H0521: 5, H0171: 4, H0583: 4, H0341: 4, S0212: 4, H0580: 4, H0619: 4, H0427: 4, S0010: 4, S0346: 4, H0046: 4, H0457: 4, H0551: 4, L0763: 4, L0794: 4, L0803: 4, L0666: 4, H0522: 4, L0759: 4, H0543: 4, H0663: 3, H0638: 3, S0442: 3, S0007: 3, S0222: 3, H0244: 3, S0003: 3, H0591: 3, H0040: 3, T0042: 3, S0142: 3, H0529: 3, L0770: 3, L0637: 3, L0771: 3, L0662: 3, L0774: 3, L0805: 3, L0655: 3, L0663: 3, L0664: 3, L0665: 3, H0659: 3, H0670: 3, S0330: 3, H0539: 3, S0152: 3, H0626: 3,	
--	--	--

	L0744: 3, L0745: 3, L0756: 3, L0731: 3, H0542: 3, H0624: 2, H0650: 2, S0444: 2, H0052: 2, H0544: 2, H0123: 2, H0024: 2, H0014: 2, H0615: 2, L0483: 2, H0032: 2, H0598: 2, H0090: 2, H0269: 2, H0207: 2, H0641: 2, S0344: 2, S0208: 2, S0422: 2, L0369: 2, L0775: 2, L0806: 2, H0519: 2, H0435: 2, S0380: 2, S0406: 2, H0555: 2, L0746: 2, L0747: 2, L0755: 2, L0596: 2, L0588: 2, S0011: 2, H0653: 2, S0196: 2, H0422: 2, S0424: 2, S0462: 2, H0170: 1, L0615: 1, S0040: 1, T0049: 1, S0218: 1, L0002: 1, H0657: 1, S0116: 1, S0110: 1, H0449: 1, H0125: 1, S0420: 1, S0356: 1, S0354: 1, S0376: 1, H0208: 1, S0046: 1	
--	---	--

	S0132: 1, S0300: 1, L0717: 1, H0437: 1, H0587: 1, T0039: 1, L0586: 1, T0060: 1, H0250: 1, H0156: 1, H0042: 1, H0036: 1, H0037: 1, H0004: 1, H0421: 1, S0049: 1, H0596: 1, H0597: 1, H0545: 1, H0570: 1, H0571: 1, H0569: 1, H0015: 1, H0020: 1, S0388: 1, S0051: 1, H0354: 1, H0510: 1, S6028: 1, S0214: 1, H0328: 1, H0688: 1, H0039: 1, T0006: 1, H0030: 1, H0644: 1, H0212: 1, S0036: 1, H0038: 1, H0372: 1, H0634: 1, H0616: 1, T0067: 1, H0264: 1, H0488: 1, H0413: 1, T0069: 1, S0440: 1, H0647: 1, H0646: 1, H0649: 1, S0002: 1, S0426: 1, L0598: 1, L0762: 1, L0638: 1, L0667: 1, L0772: 1, L0641: 1, L0642: 1.
--	--

752

HSODP14	1051256	765	130 - 549	2940	Ala-10 to His-29.	H0686: 1, H0656: 1, H0484: 1, S0420: 1, S0356: 1, S6016: 1, H0592: 1, H0333: 1, H0427: 1, S0474: 1, H0546: 1, H0081: 1, H0050: 1, L0163: 1, H0594: 1, H0267: 1, H0124: 1, H0135: 1, H0412: 1, H0056: 1, H0059: 1, H0494: 1, H0509: 1, H0633: 1, L0521: 1, H0547: 1, S0126: 1, S0328: 1, S0330: 1, S0380: 1, H0521: 1, H0522: 1, S3014: 1, S0027: 1, L0748: 1, L0750: 1, L0731: 1, L0596: 1, H0665: 1, S0276: 1 and H0543: 1. H0596: 1, H0046: 1, H0032: 1 and H0595: 1.	2q23-q31	100690, 120180, 120180, 120180, 120180, 120180, 120190, 142989, 156232, 178600.
---------	---------	-----	-----------	------	-------------------	---	----------	--

								266100, 600258, 600321	
HWLXZ72	1051319	766	2 - 199	2941	Pro-1 to Trp-12.		H0659: 4, L0747: 4, S0474: 3, L0777: 3, S0360: 2, L0653: 2, L0659: 2, L0756: 2, H0686: 1, H0449: 1, H0587: 1, H0413: 1, H0494: 1, S0002: 1, L0770: 1, L0662: 1, L0767: 1, L0803: 1, L0776: 1, L0655: 1, L0665: 1, L0757: 1 and S0194: 1.		
HUSGQ45	1051410	767	3 - 527	2942	Arg-17 to Gln-24, Tyr-39 to Tyr-47, Arg-50 to Leu-57, Lys-59 to Asn-66, Asn-78 to Val-91, Ser-94 to Ser-133, Thr-139 to Lys-175.		L0766: 4, H0090: 3, H0266: 2, H0529: 2, L0803: 2, L0774: 2, L0754: 2, L0747: 2, L0779: 2, L0759: 2, S0114: 1, H0583: 1, H0638: 1, S0356: 1, S0376: 1, H0676: 1, S0410: 1, H0580: 1, H0619: 1, S0222: 1, H0318: 1, H0373: 1, S0003: 1, H0328: 1, H0040: 1, H0616: 1, H0412: 1, L0772: 1, L0800: 1, L0789: 1,		

HLDRA54	1051437	768	263 - 676	2943	Lys-46 to Gly-63, Ala-75 to Ser-82, Gly-87 to Thr-94, Arg-121 to Gly-126.	L0664: 1, H0144: 1, H0689: 1, H0682: 1, H0672: 1, H0539: 1, S0378: 1, L0751: 1, L0745: 1, L0749: 1, L0750: 1, L0731: 1, L0758: 1, L0593: 1, S0242: 1 and S0194: 1. S0360: 10, S0440: 7, L0794: 7, L0662: 6, H0373: 5, L0666: 5, L0665: 5, H0423: 5, S0358: 4, H0486: 4, L0519: 4, L0663: 4, H0659: 4, S0330: 4, L0731: 4, H0422: 4, H0657: 3, L0471: 3, H0687: 3, H0553: 3, H0551: 3, L0598: 3, L0500: 3, L0770: 3, L0803: 3, L0775: 3, L0805: 3, L0659: 3, L0809: 3, H0710: 3, L0779: 3, L0777: 3, S0218: 2, H0341: 2, H0669: 2, H0662: 2, S0420: 2, H0580: 2, S0222: 2, T0039: 2, H0013: 2, H0251: 2, H0046: 2, H0457: 2,	3q13.3-q24	106165, 117700, 117700, 126451, 169600, 180380, 180380, 180380, 276902, 600882, 601199, 601199, 601199, 601682
---------	---------	-----	-----------	------	--	--	------------	---

756

HNOJR48	1051533	769	34 - 1377	2944	S0194: 1, H0542: 1, H0543: 1, S0384: 1 and H0506: 1.	L0748: 10, L0747: 10, 5p21.3 L0662: 9, L0596: 7, H0265: 6, L0666: 6, L0758: 6, H0081: 5, L0766: 5, L0665: 5, L0744: 5, L0750: 5, S0418: 4, H0617: 4, H0529: 4, L0659: 4, L0663: 4, H0144: 4, H0547: 4, H0657: 3, H0661: 3, S0046: 3, H0188: 3, H0687: 3, H0135: 3, H0551: 3, S0440: 3, H0647: 3, L0775: 3, L0655: 3, L0664: 3, S0406: 3, L0743: 3, L0740: 3, L0751: 3, L0731: 3, H0445: 3, L0591: 3, H0543: 3, H0423: 3, H0686: 2, S0134: 2, S0420: 2, S0358: 2, H0013: 2, H0635: 2, H0618: 2, S0010: 2, H0545: 2, N0006: 2, L0471: 2, H0622: 2, L0455: 2, H0412: 2,	106300, 108800, 120290, 120290, 120810, 120820, 142857, 142858, 150270, 167250, 170261, 177900, 179450, 201910, 217000, 222100, 233100, 235200, 248611, 256550, 256550, 600202, 600261, 601868, 602280, 602475
---------	---------	-----	-----------	------	--	--	---

760

					Lys-7 to Gln-27, Ser-48 to Gln-53, Gln-58 to Pro-69, Ala-84 to Tyr-93, Ala-114 to Leu-127, Ser-173 to Arg-180, Met-188 to Pro-193, Pro-200 to Leu-205, Ile-228 to Asp-233, Gln-271 to Cys-281, Glu-289 to Cys-304.				L0383: 1, L0528: 1, L0788: 1, L0791: 1, L0532: 1, H0697: 1, H0519: 1, H0593: 1, H0672: 1, H0539: 1, S0152: 1, S0404: 1, H0555: 1, H0436: 1, H0478: 1, H0479: 1, S3014: 1, S0027: 1, L0741: 1, L0745: 1, L0608: 1, L0593: 1, L0601: 1, L0603: 1, H0668: 1, S0026: 1, H0136: 1, S0192: 1 and H0506: 1. L0748: 13, L0758: 5, L0749: 4, L0439: 3, H0441: 2, H0052: 2, H0090: 2, L0774: 2, L0775: 2, L0517: 2, L0666: 2, L0740: 2, L0731: 2, L0759: 2, S0134: 1, L0415: 1, H0318: 1, H0327: 1, H0563: 1, S0050: 1, H0594: 1, H0266: 1, H0252: 1, H0644: 1, H0135: 1, H0616: 1, H0264: 1, S0438: 1, L0369: 1, L0763: 1,		
--	--	--	--	--	--	--	--	--	--	--	--

762

		H0691: 2, H0521: 2, S0028: 2, L0744: 2, L0758: 2, S0031: 2, H0542: 2, H0664: 1, H0662: 1, S0354: 1, H0580: 1, S0132: 1, H0619: 1, H0261: 1, S0016: 1, S0222: 1, H0455: 1, H0333: 1, H0486: 1, H0194: 1, H0263: 1, H0597: 1, H0545: 1, H0046: 1, H0009: 1, H0050: 1, H0012: 1, H0051: 1, T0006: 1, H0213: 1, L0456: 1, H0038: 1, H0616: 1, H0551: 1, H0059: 1, S0038: 1, H0561: 1, L0761: 1, L0374: 1, L0771: 1, L0766: 1, L0776: 1, L0527: 1, L0666: 1, L0665: 1, S0052: 1, H0697: 1, H0698: 1, S0374: 1, H0726: 1, H0520: 1, H0690: 1, H0435: 1, H0660: 1, H0666: 1, H0539: 1, S0390: 1, S0206: 1, L0743: 1, L0748: 1,		
--	--	--	--	--

764

HPYSC40	1052158	774	2 - 583	2949	Ile-1 to Pro-10, Pro-36 to Gln-43, Arg-92 to Cys-98, Gln-106 to Lys-115, Pro-174 to Leu-179.	L0751: 11, L0777: 9, L0809: 6, H0100: 4, H0112: 3, L0783: 3, L0747: 3, H0644: 2, H0670: 2, L0755: 2, S0040: 1, H0013: 1, H0031: 1, L0794: 1, H0144: 1 and L0759: 1.	9q34	602403 125270, 125270, 128100, 137350, 191100, 215700, 223360, 268900, 601850
HDDMT56	1052261	775	155 - 844	2950	Pro-8 to Asp-23, Leu-27 to Ser-38, Thr-40 to Arg-69, Arg-73 to Asp-97, Asp-108 to Asp-126, Gln-135 to Ile-159, Pro-176 to Ala-181, Lys-184 to Asp-192, Val-202 to Arg-210, Thr-215 to His-221.	H0641: 1, L0775: 1 and H0659: 1.		
HVVAW02	1052553	776	2 - 652	2951	Ala-1 to Ala-8, Pro-26 to Tyr-32, Gly-48 to Pro-53, Asp-132 to Gly-137, Val-139 to Leu-144, Lys-165 to Gly-171, Ser-191 to Ala-198.	S0358: 6, L0748: 5, L0777: 5, H0171: 4, H0341: 4, S0408: 4, H0597: 4, H0620: 4, L0754: 4, L0749: 4, S0360: 3, H0596: 3, H0545: 3, H0494: 3, S0210: 3, L0769: 3, S0374: 3, H0659: 3.	7q21.1	129900, 154276, 171050, 171060, 602136, 602136, 602136, 602447

766

767

HOGCS42	1052557	777	223 - 852	2952	Gly-156 to Met-161, Cys-186 to Lys-197.	AR039: 7, AR052: 6, AR089: 5, AR033: 4, AR104: 3, AR053: 3, AR096: 3, AR055: 3, AR061: 3, AR060: 2, S0358: 15, H0622: 15, S0354: 14, S0360: 11, H0435: 11, S0356: 9, H0039: 9, L0666: 9, L0751: 9, H0553: 8, H0506: 8, H0689: 7, L0748: 7, H0661: 6, L0659: 6, L0665: 6, S0376: 5, L0743: 5, H0484: 4, H0483: 4, H0059: 4, L0764: 4, L0771: 4, L0662: 4, L0809: 4, S0330: 4, H0615: 3, H0688: 3, H0040: 3, L0763: 3, L0364: 3, L0774: 3, L0663: 3, H0683: 3, H0670: 3, H0672: 3, L0750: 3, L0731: 3, H0663: 2, H0549: 2, H0046: 2, H0014: 2, H0124: 2, H0494: 2, S0450: 2, L0374: 2, L0765: 2, L0804: 2, L0378: 2, L0653: 2,		
---------	---------	-----	-----------	------	--	---	--	--

769

						L0755: 1, L0759: 1, L0596: 1, H0543: 1, S0462: 1 and H0352: 1.			
HAZAA59	I052593	778	29 - 745	2953		S0358: 4, L0752: 4, H0012: 3, H0266: 3, L0740: 3, L0731: 3, H0615: 2, L0772: 2, L0776: 2, L0565: 2, L0605: 2, L0608: 2, L0362: 2, H0423: 2, H0556: 1, S0114: 1, S0134: 1, H0341: 1, H0255: 1, H0664: 1, H0638: 1, S0356: 1, H0676: 1, H0441: 1, H0392: 1, H0613: 1, H0333: 1, H0632: 1, L0021: 1, S0049: 1, H0251: 1, H0327: 1, H0572: 1, L0471: 1, H0271: 1, H0252: 1, T0023: 1, H0135: 1, H0591: 1, H0560: 1, S0150: 1, L0637: 1, L3904: 1, L0764: 1, L0364: 1, L0803: 1, L0661: 1, L0647: 1, L0790: 1, L0663: 1, H0144: 1, S0374: 1, H0547: 1, H0690: 1.			

								H0670: 1, H0672: 1, H0539: 1, S0406: 1, H0555: 1, I0356: 1, L0742: 1, L0748: 1, L0746: 1, L0779: 1, L0758: 1, H0445: 1 and S0026: 1.			
HPDRP02	1052728	779	248 - 670	2954		Pro-12 to Asp-20, Leu-30 to Glu-37, Lys-62 to Asp-70, Met-99 to Asp-109, Ala-115 to Asn-122, Gly-135 to Asp-141.		H0619: 3, H0662: 2, H0135: 1, H0593: 1 and H0658: 1.			
HMALI21	1052874	780	623 - 1033	2955		Gly-9 to Thr-24.		L0789: 4, H0660: 2, S0278: 1, H0250: 1, T0010: 1, H0163: 1, H0551: 1, L0657: 1, L0777: 1, L0755: 1 and L0731: 1.			
HLYAR61	1053037	781	120 - 431	2956		Gln-17 to Gly-27, Glu-39 to Asp-52, Lys-79 to Asn-84.		H0341: 3, H0580: 2, S0049: 2, S0422: 2, T0049: 1, H0656: 1, S0222: 1, H0632: 1, H0486: 1, H0581: 1, H0266: 1, H0494: 1, S0438: 1, H0520: 1, H0659: 1, H0704: 1, S0406: 1, L0754: 1, L0747: 1, L0750: 1, L0752: 1, L0757: 1,			

HLTCQ80	1053164	782	2 - 562	2957		H0445: 1 and S0276: 1, H0616: 5, L0758: 4, L0362: 4, H0529: 3, L0803: 3, L0809: 3, H0592: 2, L0804: 2, L0527: 2, L0665: 2, H0547: 2, L0439: 2, L0754: 2, L0777: 2, L0485: 2, S0114: 1, H0657: 1, H0341: 1, S0420: 1, S0442: 1, S0358: 1, S0376: 1, H0675: 1, H0580: 1, H0632: 1, S0414: 1, H0013: 1, H0706: 1, H0327: 1, H0123: 1, H0428: 1, H0622: 1, H0090: 1, H0038: 1, H0551: 1, H0412: 1, S0450: 1, S0438: 1, H0647: 1, L0763: 1, L0770: 1, L0769: 1, L0761: 1, L0764: 1, L0794: 1, L0776: 1, L0659: 1, L0526: 1, L0783: 1, L0666: 1, L0663: 1, L0438: 1, H0690: 1, H0659: 1, H0670: 1, H0672: 1, H0710: 1, H0436: 1,	8q24	131950, 153840, 600669, 601282, 601455, 602232
---------	---------	-----	---------	------	--	---	------	---

HDTDU67	1053171	783	485 - 697	2958	Ser-9 to Gln-19.	S0028: 1, L0779: 1 and L0731: 1. L0362: 6, H0486: 3, S0406: 3, L0809: 2, S0434: 2, H0624: 1, H0663: 1, S0376: 1, S0360: 1, H0329: 1, S0046: 1, H0586: 1, H0150: 1, L0483: 1, H0096: 1, H0124: 1, H0591: 1, S0422: 1, L0598: 1, L0369: 1, L0763: 1, L0638: 1, L0521: 1, L0662: 1, L0766: 1, L0803: 1, L0776: 1, L0655: 1, L0657: 1, L0659: 1, L0793: 1, L0666: 1, L0665: 1, L0565: 1, H0520: 1, H0519: 1, H0684: 1, H0648: 1, H0521: 1, H0696: 1, L0747: 1, L0779: 1, L0777: 1, L0752: 1, L0758: 1, L0608: 1, H0506: 1 and H0352: 1.		
HMABL01	1053173	784	210 - 1289	2959	Ala-1 to Arg-6, Gly-45 to Gly-51, Ser-53 to Lys-69, Asp-89 to Ser-100.	L0493: 10, L0748: 6, L0601: 5, H0615: 4, L0741: 4, H0052: 3, L0774: 3, L0776: 3,		

					Pro-106 to Leu-117, L0754: 3, L0749: 3, His-119 to Gly-124, S0222: 2, H0318: 2, Asp-166 to Ser-176, H0620: 2, S0422: 2, Ser-293 to Cys-301, L0500: 2, L0769: 2, Pro-306 to Cys-313, L0766: 2, L0375: 2, Ser-317 to Gln-327, L0514: 2, L0793: 2, Arg-332 to Pro-341, S0126: 2, S6024: 1, H0484: 1, H0125: 1, H0393: 1, H0586: 1, H0497: 1, H0331: 1, H0574: 1, L0622: 1, H0013: 1, T0082: 1, S0010: 1, L0563: 1, H0597: 1, L0471: 1, H0012: 1, H0356: 1, H0328: 1, H0428: 1, H0039: 1, T0006: 1, H0424: 1, T0067: 1, H0487: 1, H0059: 1, S0144: 1, S0426: 1, L0770: 1, L5575: 1, L0768: 1, L0794: 1, L0499: 1, L0497: 1, L0806: 1, L0805: 1, L0783: 1, L0789: 1, L0666: 1, L0663: 1, L0664: 1, H0144: 1, S0374: 1, L0438: 1, H0547: 1, H0519: 1, H0593: 1, H0658: 1,				
--	--	--	--	--	---	--	--	--	--

HACMU05	1053236	785	1717 - 2631	2960	His-10 to Ala-18, Lys-77 to Gln-86, Gln-137 to Trp-143, Gln-256 to Asp-263, Glu-276 to Arg-285.	S0032: 1, L0740: 1, L0755: 1, L0758: 1, H0444: 1, L0596: 1 and S0192: 1, H0656: 6, H0521: 6, H0543: 4, S0002: 3, L0766: 3, H0664: 2, H0581: 2, H0488: 2, L0771: 2, L0767: 2, L0794: 2, L0789: 2, H0593: 2, H0436: 2, L0748: 2, L0439: 2, H0542: 2, H0423: 2, H0265: 1, H0685: 1, H0657: 1, H0663: 1, H0402: 1, H0125: 1, S0418: 1, S0354: 1, S0358: 1, H0637: 1, S0046: 1, S0278: 1, H0611: 1, H0586: 1, H0486: 1, S0280: 1, L0021: 1, H0457: 1, H0373: 1, H0083: 1, H0622: 1, H0553: 1, H0181: 1, S0036: 1, H0087: 1, H0264: 1, H0413: 1, H0623: 1, H0059: 1, H0429: 1, H0647: 1, S0144: 1, H0529: 1, L0639: 1,	17q25	114290, 138033, 162100, 170500, 170500, 170500, 180860, 264470
---------	---------	-----	----------------	------	---	---	-------	---

							L0761: 1, L0667: 1, L0644: 1, L0768: 1, L0659: 1, L0809: 1, L0790: 1, L0666: 1, L0663: 1, H0703: 1, S0374: 1, H0689: 1, H0684: 1, S0332: 1, H0555: 1, L0609: 1, L0749: 1, L0779: 1 and H0136: 1.			
HOVDF79	1053369	786	3 - 587	2961	Ala-8 to Gly-15, Gln-44 to Asn-52, Gly-62 to Ser-68.		H0615: 1, H0428: 1, L0638: 1, L0764: 1, L0659: 1, L0438: 1, L0352: 1, H0648: 1, L0439: 1 and L0731: 1.			
HVVBJS4	1053547	787	2 - 610	2962			H0135: 13, H0052: 9, H0539: 8, H0521: 8, H0013: 7, L0769: 7, L0666: 7, L0750: 7, L0599: 7, S0007: 6, H0619: 6, H0333: 6, H0486: 6, S0010: 6, H0012: 6, L0766: 6, H0144: 6, H0593: 6, L0745: 6, H0656: 5, H0197: 5, H0024: 5, H0428: 5, H0100: 5, L0520: 5, L0776: 5, L0655: 5, L0517: 5, L0663: 5, H0670: 5,	19p13.3	108725, 120700, 133171, 136836, 145981, 147141, 164953, 188070, 600957, 601238, 601846, 602216, 602477	

777

H0587: 2, H0575: 2, S0346: 2, H0123: 2, L0471: 2, H0620: 2, H0199: 2, H0373: 2, H0356: 2, H0099: 2, H0271: 2, S0250: 2, H0688: 2, T0006: 2, H0181: 2, L0455: 2, S0366: 2, H0634: 2, H0561: 2, H0641: 2, S0142: 2, S0210: 2, H0529: 2, L0637: 2, L0761: 2, L0646: 2, L0803: 2, L0775: 2, L0636: 2, L0526: 2, L0518: 2, L0809: 2, L0789: 2, S0053: 2, H0693: 2, H0520: 2, H0658: 2, H0651: 2, H0710: 2, S0406: 2, H0478: 2, L0611: 2, S0027: 2, L0741: 2, L0754: 2, L0749: 2, L0756: 2, L0777: 2, L0731: 2, S0434: 2, L0597: 2, L0592: 2, L0581: 2, L0593: 2, L0595: 2, L0361: 2, L0601: 2, L0603: 2, S0026: 2, S0194: 2,
--

	H0543: 2, H0265: 1, H0556: 1, H0686: 1, S0218: 1, S0282: 1, H0254: 1, H0663: 1, H0306: 1, H0638: 1, S0418: 1, S0354: 1, S0358: 1, S0376: 1, S0408: 1, H0637: 1, L0476: 1, H0393: 1, H0437: 1, H0550: 1, S6016: 1, H0392: 1, H0455: 1, H0249: 1, H0600: 1, T0040: 1, T0060: 1, H0635: 1, H0427: 1, H0599: 1, H0706: 1, H0036: 1, H0253: 1, T0048: 1, H0318: 1, S0474: 1, S0049: 1, H0309: 1, H0046: 1, H0569: 1, H0081: 1, H0154: 1, S0051: 1, H0083: 1, S6028: 1, H0238: 1, H0188: 1, S0318: 1, H0288: 1, S0022: 1, H0328: 1, H0039: 1, L0483: 1, H0031: 1, H0553: 1, H0644: 1, H0628: 1, L0055: 1, H0674: 1, L0456: 1,				
--	--	--	--	--	--

780

HOFMU50	1053548	788	356 - 547	2963	Gln-36 to Leu-47, Glu-55 to Asn-64.	H0352: 1, H0415: 2, H0583: 1, H0123: 1, H0623: 1, H0518: 1 and L0779: 1.		
HE9MO38	1053585	789	2 - 268	2964	Pro-26 to Ala-33, Gly-68 to Gln-75.	H0254: 1, S0278: 1, L0764: 1, H0144: 1, S0424: 1 and H0506: 1.		
HOPJF55	1053725	790	3 - 698	2965	Glu-1 to Gly-11, Gln-83 to Asp-98, Glu-101 to Gln-110, Gln-112 to Gln-120, Thr-128 to Asn-133, Glu-135 to Gly-142, Asp-145 to Cys-153, His-160 to Cys-166.	L0747: 10, L0771: 8, H0333: 7, H0620: 6, H0545: 5, H0024: 5, H0551: 5, L0659: 5, L0665: 5, H0012: 4, L0769: 4, L0375: 4, S0126: 4, L0740: 4, L0754: 4, L0755: 4, L0759: 4, H0294: 3, S0045: 3, H0550: 3, L0471: 3, L0794: 3, H0689: 3, H0682: 3, L0749: 3, H0624: 2, H0171: 2, H0251: 2, H0081: 2, H0050: 2, H0252: 2, H0428: 2, H0124: 2, H0068: 2, L0637: 2, L0368: 2, L0792: 2, L0565: 2, L0779: 2, L0777: 2, L0757: 2, H0352: 2, H0170: 1, H0685: 1, S0356: 1, S0376: 1,	Ip36.1-p35	116600, 118210, 120550, 120570, 120575, 121800, 130500, 133200, 138140, 138971, 171760, 171760, 172411, 185470, 230350, 255800, 600975, 602771

782

	H0265: 3, H0657: 3, H0402: 3, S0358: 3, S0360: 3, H0150: 3, H0012: 3, H0413: 3, S0344: 3, H0529: 3, L0770: 3, L0766: 3, L0752: 3, H0686: 2, S0420: 2, S0046: 2, H0441: 2, L0622: 2, H0013: 2, H0327: 2, H0545: 2, H0606: 2, L0455: 2, H0100: 2, T0041: 2, H0509: 2, S0422: 2, L0774: 2, L0805: 2, L0659: 2, H0691: 2, H0690: 2, H0672: 2, H0521: 2, S0044: 2, S3014: 2, S0206: 2, S0032: 2, L0749: 2, L0755: 2, L0581: 2, L0594: 2, H0667: 2, S0446: 2, H0352: 2, H0170: 1, H0556: 1, S0040: 1, T0049: 1, H0583: 1, H0483: 1, H0661: 1, S0418: 1, S0045: 1, S0132: 1, H0351: 1, H0333: 1, H0486: 1, H0101: 1, T0082: 1,	
--	--	--

784

							L0743: 1, L0750: 1, L0757: 1, L0759: 1, H0445: 1, S0242: 1, S0196: 1, L0698: 1, UNKWN: 1 and L0600: 1.			
HODCJ32	1053772	792	643 - 149	2967		Tyr-1 to Gln-8, Pro-51 to Thr-67, Val-85 to Ser-90, Pro-118 to Gly-128.	L0776: 4, L0756: 4, L0777: 4, L0749: 2, H0052: 1, H0565: 1, H0328: 1, L0770: 1, L0769: 1, L0761: 1, L0805: 1, L0659: 1, L0809: 1, L0787: 1, L0666: 1, L0665: 1, L0439: 1, L0751: 1, L0745: 1, L0747: 1, L0779: 1 and L0758: 1.			
HOCPT34	1053973	793	1 - 2355	2968		Ser-19 to Gly-26, Glu-46 to Gln-52, Pro-61 to Ser-66, Arg-71 to Leu-85, Tyr-99 to Tyr-105, Pro-107 to Gly-115, Leu-137 to Leu-147, Glu-175 to Leu-181, Ala-187 to Ser-196, Ile-200 to Trp-209, Ser-353 to Lys-367, Gly-388 to Ser-397, Thr-415 to Val-423.	L0438: 5, L0749: 4, H0266: 3, H0038: 3, L0803: 3, L0666: 3, L0777: 3, L0763: 2, H0547: 2, L0748: 2, L0759: 2, S0031: 2, L0591: 2, S0358: 1, S0376: 1, S0007: 1, S0045: 1, S0132: 1, S0222: 1, H0013: 1, S0010: 1, H0390: 1, H0052: 1, H0596: 1, H0046: 1, H0564: 1,	2q23-q31	100690, 120180, 120180, 120180, 120180, 120190, 142989, 156232, 178600, 266100, 600258, 600321	

HFKHC64	1054015	794	1928 - 363	2969	Gly-6 to His-16, Arg-20 to Gly-41, Arg-115 to Asn-121, Phe-136 to Glu-144, Lys-152 to Glu-162, Glu-176 to Thr-182, Pro-205 to Gln-212, Lys-229 to Ala-235, Gly-310 to Trp-315, Val-328 to Thr-342.	N0007: 1, H0201: 1, H0616: 1, H0551: 1, T0042: 1, H0561: 1, H0131: 1, H0529: 1, L0761: 1, L0641: 1, L0774: 1, L0776: 1, L0659: 1, L0665: 1, H0520: 1, H0519: 1, H0593: 1, S0126: 1, H0660: 1, H0539: 1, H0579: 1, L0743: 1, L0439: 1, L0745: 1, L0747: 1, L0750: 1, S0260: 1 and L0366: 1.	19q13.2- q13.4	107741, 113900, 122720, 122720, 126340, 126391, 134790, 160900, 164731, 173850, 191044, 207750, 248600, 258501, 600040, 600138
---------	---------	-----	------------	------	---	---	-------------------	---

787

					Pro-105 to Ala-123.	S0420: 2, H0599: 2, H0620: 2, H0617: 2, H0412: 2, H0100: 2, H0646: 2, H0520: 2, H0684: 2, L0588: 2, L0778: 1, H0484: 1, H0661: 1, S0360: 1, H0586: 1, H0427: 1, H0253: 1, H0581: 1, H0546: 1, H0009: 1, N0006: 1, H0172: 1, H0012: 1, H0188: 1, H0181: 1, H0606: 1, H0040: 1, H0059: 1, H0561: 1, S0002: 1, L0503: 1, L0640: 1, L0803: 1, L0652: 1, L0654: 1, L0790: 1, L0664: 1, L0565: 1, H0682: 1, H0658: 1, H0670: 1, H0660: 1, H0539: 1, L0744: 1, L0439: 1, L0754: 1, L0747: 1, L0750: 1, L0777: 1, L0731: 1, S0260: 1, L0593: 1, H0506: 1 and H0352: 1.		
HNBVO53	1054122	796	2 - 2332	2971	His-4 to Tyr-10, Ile-58 to Leu-63, Pro-65 to Val-74,	L0794: 5, H0542: 5, S0358: 3, H0013: 2, H0618: 2, H0617: 2,		

					Leu-122 to Ser-132, Gln-134 to Leu-144, Pro-155 to Ser-166.	L0769: 2, L0764: 2, L0662: 2, L0803: 2, H0670: 2, L0756: 2, L0595: 2, L0361: 2, H0556: 1, S0040: 1, L0785: 1, H0341: 1, H0661: 1, H0662: 1, H0402: 1, S0420: 1, H0370: 1, T0040: 1, T0114: 1, H0253: 1, H0581: 1, H0041: 1, H0687: 1, H0604: 1, H0213: 1, H0644: 1, H0181: 1, H0087: 1, H0412: 1, H0413: 1, H0100: 1, S0382: 1, H0509: 1, S0210: 1, L0763: 1, L0761: 1, L0372: 1, L0641: 1, L0649: 1, L0386: 1, L0809: 1, L0789: 1, L0663: 1, H0693: 1, H0658: 1, H0672: 1, H0539: 1, S0027: 1, L0757: 1, L0758: 1, L0604: 1, H0543: 1, H0506: 1 and H0352: 1.			
HOPKF84	1054155	797	395 - 1168	2972	Ser-11 to Cys-17, Glu-39 to Tyr-49, Gln-98 to Gln-104,	L0766: 5, L0804: 3, L0105: 2, L0803: 2, L0788: 2, H0659: 2,			

						Gly-122 to Ser-128, Tyr-154 to Val-163, Gln-170 to Thr-195, Leu-213 to Gly-218, Lys-229 to Phe-236, Ser-241 to Ser-248.	L0759: 2, H0624: 1, H0657: 1, H0661: 1, H0601: 1, H0266: 1, H0687: 1, H0032: 1, H0413: 1, S0450: 1, H0509: 1, L0763: 1, L0638: 1, L0761: 1, L0662: 1, L0650: 1, L0805: 1, L0659: 1, L0666: 1, L0664: 1, L0665: 1, S0052: 1, H0547: 1, H0684: 1, L0745: 1, L0747: 1, L0750: 1, L0731: 1, L0758: 1, H0595: 1, S0026: 1, H0543: 1, S0424: 1 and S0456: 1.			
HCQDQ11	1054196	798	109 - 174	2973			H0594: 11, H0596: 8, S0282: 5, S0260: 5, S0194: 5, H0543: 5, S0278: 2, H0600: 2, H0592: 2, H0598: 2, S0344: 2, H0595: 2, S0356: 1, H0438: 1, H0574: 1, H0599: 1, S0346: 1, H0318: 1, H0597: 1, S0388: 1, H0316: 1, S0390: 1 and H0542: 1.	17p13.3	113721, 247200, 600059, 601545	
HTFML39	1054230	799	1 - 873	2974	Ala-23 to Gly-49,		H0124: 2, H0618: 1,			

					Ser-106 to Pro-115, Gly-160 to Lys-167, Thr-183 to Gly-189, Gln-196 to Gly-211, Ala-218 to Gly-224, Val-257 to Leu-269.	H0123: 1, H0012: 1, H0083: 1, H0428: 1, H0593: 1, L0740: 1 and S0424: 1.		
HOGCR32	1054235	800	3 - 137	2975	Pro-3 to Lys-13, Thr-39 to Ile-45.	H0435: 2		
HFCDL60	1054288	801	1158 - 241	2976	Gln-2 to Thr-7, Arg-64 to Lys-72, Glu-77 to Leu-83, Arg-93 to Ser-102, Ile-118 to Gln-123, Ser-152 to Gly-158, Gln-276 to Ser-282.	AR089: 7, AR104: 6, AR096: 6, AR053: 4, AR039: 4, AR060: 3, AR033: 1, AR061: 1, AR055: 0 L0777: 9, H0556: 8, H0620: 7, L0766: 7, H0521: 7, L0747: 6, S0360: 5, H0250: 5, L0751: 5, L0794: 4, L0754: 4, L0591: 4, S0354: 3, S0358: 3, S0278: 3, H0553: 3, S0144: 3, L0769: 3, L0773: 3, H0547: 3, S0404: 3, S3014: 3, L0743: 3, L0744: 3, L0439: 3, L0752: 3, L0731: 3, H0445: 3, S0218: 2, H0580: 2, S0132: 2, H0393: 2, H0550: 2, S0222: 2,	15q23-q25	118485, 151670, 231680, 272800, 272800, 272800, 276700, 600374, 601780

792

	S0280: 1, H0156: 1, H0706: 1, H0318: 1, H0310: 1, H0231: 1, H0545: 1, H0009: 1, H0565: 1, H0123: 1, H0012: 1, H0047: 1, H0197: 1, H0024: 1, H0057: 1, T0010: 1, H0267: 1, H0252: 1, H0688: 1, H0617: 1, S0364: 1, H0124: 1, S0036: 1, H0040: 1, H0488: 1, H0412: 1, H0059: 1, H0100: 1, H0494: 1, H0560: 1, S0448: 1, S0440: 1, H0131: 1, H0130: 1, H0633: 1, H0647: 1, S0344: 1, L0770: 1, L0643: 1, L0645: 1, L0764: 1, L0521: 1, L0364: 1, L0381: 1, L0774: 1, L0775: 1, L0806: 1, L0653: 1, L0776: 1, L0659: 1, L0809: 1, L0663: 1, L0664: 1, H0699: 1, S0374: 1, H0435: 1, H0648: 1, S0152: 1, S0044: 1, H0134: 1					
--	---	--	--	--	--	--

							S0406: 1, S0032: 1, L0749: 1, L0756: 1, L0779: 1, L0759: 1, S0260: 1, H0665: 1, H0136: 1, H0423: 1, S0424: 1 and H0506: 1.			
HODEC13	1054400	802	1599 - 880	2977			H0208: 2, H0615: 2, S0001: 1, H0351: 1, H0545: 1, H0081: 1, H0424: 1 and H0334: 1.			
HUSYA18	1054451	803	689 - 138	2978			L0749: 15, L0748: 9, L0758: 9, L0766: 8, L0770: 7, H0266: 6, L0775: 6, L0655: 6, L0731: 6, L0362: 6, S0444: 5, L0764: 5, L0809: 5, S0358: 4, H0637: 4, L0777: 4, L0752: 4, H0305: 3, S0440: 3, L0646: 3, L0773: 3, S0406: 3, L0439: 3, L0740: 3, L0754: 3, L0755: 3, L0759: 3, H0341: 2, S0420: 2, S0356: 2, S0360: 2, S6028: 2, H0551: 2, S0438: 2, L0761: 2, L0373: 2, L0800: 2, L0768: 2, L0774: 2, L0666: 2,	13q12.3- q13.1	157900, 600185, 600185, 600631	

	L0665: 2, S0378: 2, S0380: 2, L0750: 2, L0592: 2, H0423: 2, H0624: 1, H0685: 1, H0664: 1, S0418: 1, S0476: 1, H0393: 1, H0351: 1, S0222: 1, H0574: 1, L0623: 1, H0486: 1, H0156: 1, T0082: 1, H0036: 1, S0010: 1, H0318: 1, H0309: 1, H0569: 1, S0003: 1, L0055: 1, H0673: 1, S0036: 1, H0412: 1, H0413: 1, S0038: 1, L0351: 1, T0041: 1, H0494: 1, H0714: 1, L0369: 1, L0520: 1, L0763: 1, L0769: 1, L0772: 1, L0372: 1, L0645: 1, L0521: 1, L0767: 1, L0364: 1, L0794: 1, L0649: 1, L0375: 1, L0651: 1, L0378: 1, L0805: 1, L0653: 1, L4669: 1, L0659: 1, L0792: 1, L5286: 1, L0663: 1, L0664: 1, S0374: 1, H0689: 1				
--	---	--	--	--	--

796

HKMNH37	1054550	805	22 - 1206	2980	Ser-24 to Thr-31, Pro-164 to Asn-173, Val-185 to Arg-192, Gln-199 to Gly-204, Lys-250 to Gly-258, Gln-265 to Ser-277, Gln-322 to Gly-327, Ala-334 to Ser-343, Pro-349 to Cys-356.	H0494: 1, H0561: 1, H0509: 1, S0144: 1, S0344: 1, S0210: 1, S0002: 1, L0770: 1, L0667: 1, L0772: 1, L0771: 1, L0662: 1, L0803: 1, L0774: 1, L0806: 1, L0655: 1, L0659: 1, L0636: 1, L0783: 1, L0663: 1, L0664: 1, L0665: 1, H0519: 1, H0689: 1, H0684: 1, H0658: 1, H0660: 1, L0602: 1, H0436: 1, L0779: 1, S0031: 1, L0595: 1 and S0424: 1.		
---------	---------	-----	-----------	------	---	--	--	--

HPDWP21	1054662	806	63 - 797	2981	Lys-26 to Glu-41, Lys-149 to Ala-156, Arg-214 to Lys-225, Ile-229 to Lys-235, Glu-240 to His-245.	L0743: 1, L0740: 1, L0751: 1, L0747: 1, L0756: 1, H0445: 1, L0599: 1, H0423: 1, L0698: 1 and H0352: 1, L0659: 10, L0439: 5, L0378: 4, L0748: 4, L0777: 4, H0657: 3, L0662: 3, L0655: 3, L0665: 3, S0428: 3, H0658: 3, S0434: 3, H0618: 2, S0474: 2, S0049: 2, H0309: 2, H0024: 2, H0412: 2, S0002: 2, S0426: 2, L0646: 2, L0771: 2, L0774: 2, L0657: 2, L0664: 2, H0696: 2, S0027: 2, L0588: 2, L0605: 2, L0601: 2, H0556: 1, T0002: 1, H0716: 1, S0116: 1, H0661: 1, H0662: 1, S0418: 1, S0442: 1, S0444: 1, H0208: 1, S0132: 1, S0476: 1, H0619: 1, H0351: 1, S6022: 1, H0549: 1, S0220: 1, H0455: 1, H0427: 1, S0280: 1,		
---------	---------	-----	----------	------	---	--	--	--

HOGCS52	1054677	807	21 - 1388	2982	Met-31 to Arg-37,	H0706: 1, T0071: 1, H0544: 1, H0546: 1, H0545: 1, N0006: 1, H0123: 1, H0057: 1, S0051: 1, H0188: 1, H0031: 1, L0055: 1, H0673: 1, H0708: 1, H0163: 1, H0090: 1, H0634: 1, H0087: 1, H0623: 1, H0059: 1, S0386: 1, H0633: 1, H0538: 1, H0695: 1, L0763: 1, L0769: 1, L0638: 1, L0639: 1, L5565: 1, L0667: 1, L0764: 1, L0650: 1, L0775: 1, L0375: 1, L0807: 1, L0542: 1, L0384: 1, L0666: 1, H0144: 1, H0519: 1, S0008: 1, H0660: 1, H0518: 1, H0521: 1, S0044: 1, H0436: 1, S0037: 1, S3014: 1, L0744: 1, L0740: 1, L0731: 1, L0757: 1, L0758: 1, S0031: 1, H0445: 1, S0194: 1, H0423: 1 and H0721: 1.			

800

802

Asp-85 to Ala-116, Gln-132 to Lys-140, Phe-143 to Leu-152.	L0747: 10, L0005: 9, L0755: 8, L0754: 7, L0731: 6, L0776: 5, L0758: 5, L0759: 5, H0141: 4, H0585: 4, S0360: 4, L0770: 4, L0771: 4, L0775: 4, S0374: 4, L0756: 4, L0763: 3, L0764: 3, L0766: 3, L0806: 3, L0751: 3, L0749: 3, H0668: 3, H0543: 3, H0295: 2, H0638: 2, S0222: 2, S0210: 2, L0662: 2, L0774: 2, L0783: 2, L0792: 2, H0144: 2, S0152: 2, S0406: 2, L0748: 2, L0750: 2, L0757: 2, H0542: 2, H0624: 1, H0171: 1, T0002: 1, H0294: 1, S0218: 1, S0430: 1, H0656: 1, H0341: 1, H0661: 1, H0228: 1, S0348: 1, S0376: 1, S0444: 1, S0408: 1, S0045: 1, S0278: 1, H0431: 1, H0586: 1, H0587: 1, H0497: 1, H0486: 1,					
--	---	--	--	--	--	--

						H0599: 1, H0196: 1, T0110: 1, H0327: 1, H0009: 1, L0157: 1, H0083: 1, H0375: 1, H0594: 1, H0188: 1, H0687: 1, S0003: 1, H0252: 1, H0428: 1, H0031: 1, H0553: 1, H0400: 1, H0591: 1, T0067: 1, H0264: 1, H0059: 1, S0386: 1, T0041: 1, H0494: 1, H0625: 1, S0438: 1, H0641: 1, H0646: 1, S0144: 1, S0344: 1, L0520: 1, L0769: 1, L0638: 1, L0761: 1, L0373: 1, L0768: 1, L0383: 1, L0666: 1, L0664: 1, H0547: 1, H0670: 1, S0328: 1, S0146: 1, H0436: 1, S3012: 1, L0744: 1, L0740: 1, L0752: 1, L0753: 1, H0445: 1, H0653: 1 and H0667: 1.				
HWLOU33	1054790	809	3 - 401	2984		AR096: 3, AR052: 2, AR089: 2, AR060: 2, AR061: 1, AR033: 1, AR053: 1, AR055: 1,				

						AR039: 0, AR104: 0 S0444: 5, S0360: 4, S0408: 3, H0625: 3, H0436: 3, S0358: 2, H0641: 2, L0803: 2, S0374: 2, H0656: 1, H0662: 1, S0420: 1, S0442: 1, S0354: 1, S0376: 1, H0392: 1, H0427: 1, H0457: 1, H0538: 1, H0547: 1, H0660: 1, H0648: 1, H0672: 1, S0378: 1, S0192: 1, H0423: 1 and H0422: 1.		
HKZBM58	1054812	810	33 - 584	2985	Leu-25 to Arg-30, Gln-41 to Thr-56, Met-74 to Asn-81, Tyr-108 to Thr-116, Asp-126 to Gly-131, Met-141 to Asp- 149, Pro-170 to Tyr-184.	L0748: 19, S0372: 12, L0747: 12, L0750: 9, S0408: 7, L0752: 7, L0731: 7, L0758: 7, H0031: 6, L0439: 6, L0740: 6, L0769: 5, L0757: 5, L0471: 4, L0065: 4, H0672: 4, H0543: 4, H0341: 3, H0318: 3, H0616: 3, H0413: 3, L0771: 3, L0803: 3, L0790: 3, H0547: 3, H0689: 3, H0658: 3, S0406: 3, H0436: 3, L0779: 3,		

	H0686: 2, S0212: 2, H0662: 2, S0356: 2, S0358: 2, S0360: 2, H0675: 2, H0580: 2, H0370: 2, L0623: 2, H0486: 2, H0575: 2, S0010: 2, H0428: 2, H0628: 2, H0674: 2, H0038: 2, H0056: 2, S0440: 2, L0520: 2, L0764: 2, L0767: 2, L0794: 2, L0766: 2, L0775: 2, L0783: 2, L0809: 2, L0791: 2, L0665: 2, H0659: 2, H0651: 2, S0330: 2, H0539: 2, H0134: 2, L0754: 2, S0260: 2, L0362: 2, L0361: 2, H0668: 2, L0440: 1, H0265: 1, H0295: 1, S0114: 1, T0049: 1, H0484: 1, H0661: 1, H0638: 1, S0354: 1, S0007: 1, S0045: 1, S0132: 1, H0619: 1, H0411: 1, S0222: 1, H0392: 1, H0592: 1, H0333: 1, H0574: 1, T0039: 1, T0114: 1	
--	---	--

807

							H0555: 1, S0028: 1, L0742: 1, L0753: 1, H0445: 1, H0595: 1, S0434: 1, L0592: 1, L0485: 1, L0608: 1, S0194: 1 and L0600: 1.			
HTEOV06	1054813	811	311 - 799	2986		Glu-12 to Thr-27, Met-45 to Asn-52, Tyr-79 to Thr-87, Asp-97 to Tyr-103, Met-120 to Asp- 128, Pro-149 to Tyr-163.	L0747: 2, H0556: 1, S0134: 1, H0341: 1, S0444: 1, H0013: 1, H0575: 1, H0050: 1, H0687: 1, H0628: 1, H0090: 1, H0616: 1, H0551: 1, S0440: 1, H0710: 1, L0748: 1, L0740: 1 and S0434: 1.			
HAMGH34	1055012	812	1446 - 661	2987		Thr-8 to Ala-15, Lys-29 to Ser-39, Lys-44 to Asn-52, Gly-61 to Pro-68.	H0560: 1, S0426: 1, L0776: 1, L0545: 1, L0588: 1, L0591: 1 and H0542: 1.			
HTEHP29	1055174	813	889 - 305	2988		Gly-1 to His-8, Pro-13 to Asn-30.	L0483: 6, L0749: 5, L0659: 4, L0766: 3, L0591: 3, H0038: 2, L0769: 2, L0665: 2, L0438: 2, H0539: 2, L0758: 2, L0759: 2, L0588: 2, H0650: 1, H0664: 1, S0360: 1, S0003: 1, H0615: 1, H0553: 1, H0644: 1, H0169: 1, S0438: 1,			

HNOJJ32	1055248	814	532 - 1914	2989	Gln-2 to Asp-7, Lys-34 to Arg-53, Gly-61 to Glu-70.	S0422: 1, L0770: 1, L0662: 1, L0804: 1, L0776: 1, L0666: 1, S0374: 1, S0310: 1, H0520: 1, S0126: 1, L0748: 1, L0439: 1, L0747: 1 and L0757: 1. H0046: 13, L0439: 6, S0360: 3, H0024: 3, L0769: 3, L0805: 3, L0748: 3, L0749: 3, H0624: 2, H0100: 2, H0520: 2, S0436: 2, L0592: 2, H0685: 1, H0717: 1, H0661: 1, H0664: 1, H0449: 1, S0420: 1, S0376: 1, S0007: 1, S0476: 1, S0300: 1, L0717: 1, H0013: 1, H0156: 1, L0021: 1, H0575: 1, S0010: 1, S0474: 1, L0738: 1, H0178: 1, H0018: 1, S6028: 1, H0188: 1, H0687: 1, H0252: 1, H0428: 1, H0553: 1, S0036: 1, H0038: 1, H0264: 1, S0038: 1, H0561: 1, S0450: 1, S0422: 1,	
---------	---------	-----	------------	------	---	--	--

						S0002: 1, L5566: 1, L0803: 1, L0651: 1, L0776: 1, L0789: 1, S0330: 1, S0332: 1, H0704: 1, S0406: 1, L0740: 1, L0780: 1, L0758: 1, L0759: 1, H0595: 1, S0434: 1, L0595: 1, S0026: 1, H0543: 1, H0423: 1 and H0008: 1.		
HFPHF52	1055304	815	2 - 1333	2990	Ala-1 to Phe-8, Glu-16 to Gly-52, Ser-64 to Gln-80, Leu-94 to Lys-99, Ser-123 to Gln-136, His-157 to Ser-164, Lys-179 to Pro-190, Arg-220 to Gln-226, Phe-244 to Arg-252, Lys-277 to Thr-288, Gln-305 to Gly-310, Gln-328 to Gln-334, Pro-390 to Ala-401, Pro-411 to Gln-417.	L0748: 18, L0754: 14, L0759: 11, S0222: 8, H0144: 8, H0520: 6, L0742: 6, H0013: 5, L0749: 5, H0547: 4, L0602: 4, L0777: 4, H0170: 3, H0393: 3, H0428: 3, H0553: 3, L0520: 3, L0747: 3, H0624: 2, S0346: 2, L0471: 2, H0615: 2, H0644: 2, S0150: 2, H0538: 2, L0626: 2, L0794: 2, L0650: 2, L0805: 2, L0438: 2, L0439: 2, L0751: 2, L0756: 2, L0780: 2, L0755: 2, L0682: 2, L0594: 2, L0718: 2,	19q13.4	134790, 191044, 600040, 600138

						L0002: 1, L0717: 1, H0369: 1, H0455: 1, H0438: 1, H0642: 1, H0331: 1, H0244: 1, H0156: 1, S0010: 1, H0052: 1, L0118: 1, H0051: 1, S0048: 1, S0051: 1, T0010: 1, S0028: 1, L0142: 1, H0674: 1, T0027: 1, L0435: 1, L0369: 1, L0662: 1, L0658: 1, L0659: 1, L0789: 1, L0790: 1, L0791: 1, L0792: 1, L0666: 1, T0068: 1, H0519: 1, S0122: 1, H0672: 1, H0539: 1, S0260: 1 and L0592: 1.		
HBNMF62	1055381	816	266 - 679	2991	Pro-13 to Gly-25, Arg-47 to Gly-54, Pro-74 to Lys-81, His-87 to Trp-93, Glu-107 to Arg-137.	AR089: 2, AR052: 2, AR055: 2, AR039: 1, AR060: 1, AR096: 1, AR033: 1, AR053: 1, AR061: 1, AR104: 0 L0754: 7, L0748: 4, S0007: 3, L0771: 3, L0749: 3, L0750: 3, L0600: 3, L0717: 2, H0618: 2, H0046: 2, H0561: 2, S0422: 2.		

HTPH072	1055426	817	2 - 1048	2992	Gly-8 to Arg-14, Pro-24 to Arg-29, Leu-64 to Arg-73, His-91 to Arg-97, Tyr-141 to Thr-148, Glu-153 to Met-158, Asp-173 to Arg-180, Lys-185 to Pro-199, Glu-228 to Asp-235,	L0763: 2, L0637: 2, L0794: 2, L0659: 2, H0660: 2, L0439: 2, L0755: 2, T0002: 1, H0583: 1, H0671: 1, S0354: 1, S6016: 1, H0586: 1, L0021: 1, H0052: 1, S0051: 1, T0010: 1, H0083: 1, H0553: 1, H0135: 1, H0063: 1, H0633: 1, L0639: 1, L0646: 1, L0649: 1, L0375: 1, L0655: 1, L0545: 1, L0647: 1, L0664: 1, L0665: 1, H0670: 1, H0672: 1, S0378: 1, H0696: 1, L0751: 1, L0752: 1, L0758: 1, L0759: 1, L0596: 1, L0608: 1 and H0423: 1, H0547: 8, L0666: 6, S0026: 6, L0803: 5, L0439: 5, L0740: 5, L0754: 5, L0758: 5, L0362: 5, S0242: 5, H0038: 4, S0440: 4, H0529: 4, L0800: 4, L0662: 4, H0648: 4, L0742: 4, L0752: 4,	15q22.33- q24.1	151670, 231680, 276700, 600374, 601780
---------	---------	-----	----------	------	--	---	--------------------	--

813

814

Ala-82 to Lys-87, Gly-94 to Asp-100, Lys-175 to Asp-181, Asp-185 to Trp-190, Gly-193 to Asp-199, Leu-247 to Trp-252, Pro-278 to Asp-283, Arg-395 to Phe-402, Pro-404 to Asp-410, Pro-412 to Trp-420, Gly-443 to Asp-450.	L0751: 12, H0622: 11, L0731: 10, L0659: 8, L0777: 7, L0759: 7, S0360: 6, H0544: 5, L0764: 5, L0748: 5, H0546: 4, L0750: 4, L0780: 4, L0603: 4, H0620: 3, H0644: 3, H0606: 3, H0059: 3, L0771: 3, L0766: 3, L0806: 3, L0665: 3, H0684: 3, H0618: 2, H0086: 2, H0181: 2, L0644: 2, L0375: 2, L0666: 2, L0664: 2, L0744: 2, L0747: 2, L0779: 2, L0752: 2, L0757: 2, L0758: 2, L0605: 2, H0624: 1, H0171: 1, H0661: 1, H0662: 1, S0046: 1, H0549: 1, H0251: 1, H0012: 1, T0003: 1, H0039: 1, H0553: 1, H0316: 1, H0040: 1, H0477: 1, S0352: 1, L0763: 1, L0769: 1, L0796: 1, L0761: 1, L0772: 1, L0773: 1, L0648: 1, L0807: 1,					
--	---	--	--	--	--	--

816

817

818

							H0134: 1, S0134: 1, L0742: 1, L0744: 1, L0740: 1, L0754: 1, L0755: 1, L0759: 1, L0603: 1, H0668: 1, S0196: 1, H0422: 1 and H0352: 1.		
HTXRR82	1055480	821	408 - 1364	2996	Val-7 to Gln-20, Pro-99 to Lys-105, Glu-113 to Val-119, Ser-136 to Trp-142, Ala-159 to His-164.		H0556: 2, H0135: 2, S0040: 1, H0657: 1, H0586: 1, H0013: 1, H0428: 1, L0761: 1, L0773: 1, L0768: 1, L0774: 1, L0775: 1, H0521: 1, L0748: 1, L0749: 1, L0759: 1 and H0543: 1.		
HAIBU62	1055582	822	1 - 1518	2997	Arg-44 to Val-54.		L0439: 9, S0136: 7, L0777: 3, L0779: 2, H0624: 1, H0170: 1, H0686: 1, H0656: 1, S0408: 1, S0132: 1, H0374: 1, H0266: 1, H0551: 1, L0521: 1, L0662: 1, L0794: 1, L0766: 1, L0381: 1, L0803: 1, L0659: 1, L0809: 1, L0663: 1, L0438: 1, H0659: 1, H0539: 1, L0752: 1, L0592: 1 and L0595: 1.		

HDTAY29	1055632	823	1276 - 686	2998		L0731: 5, H0038: 3, L0766: 2, H0683: 2, H0670: 2, H0660: 2, L0747: 2, L0749: 2, L0779: 2, L0758: 2, H0583: 1, S0420: 1, S0360: 1, H0486: 1, H0156: 1, H0599: 1, H0581: 1, H0597: 1, H0247: 1, H0494: 1, H0647: 1, S0210: 1, L0794: 1, L0804: 1, H0436: 1, S0027: 1, L0596: 1, L0485: 1 and H0542: 1.		
HCOQD79	1055767	824	42 - 689	2999	Trp-8 to Gly-16, Ala-18 to Ala-26, His-28 to His-41, Pro-79 to Glu-85.	L0769: 3, H0484: 1, H0546: 1, H0178: 1, H0553: 1, S0366: 1, L0770: 1, L0761: 1, L0772: 1, L0372: 1, L0374: 1, L0645: 1, L0771: 1, L0766: 1, L0653: 1, L0666: 1, L0664: 1, H0670: 1, S0406: 1, L0777: 1, L0601: 1 and S0446: 1.	16p13.3	141750, 141800, 141800, 141800, 141800, 141850, 141850, 141850, 141850, 141850, 141850, 156850, 186580, 191092, 600140, 600273.

HAMHN12	1055899	825	2 - 1129	3000	Ala-20 to Arg-28, Gly-37 to Thr-47, Pro-50 to Asn-56, Pro-77 to Ala-82, Thr-114 to Ala-119, Pro-133 to Thr-141, Gly-150 to Cys-161, Pro-165 to Asn-177, Thr-179 to Gly-188, Glu-198 to Cys-212, Ile-216 to Arg-222, Val-254 to Arg-265, Ser-271 to Leu-276, Lys-281 to Asn-286, Pro-341 to Lys-346, Ala-349 to Met-355.	AR096: 626, AR039: 392, AR089: 360, AR053: 315, AR060: 315, AR033: 157, AR104: 153, AR061: 115, AR055: 31 L0518: 7, L0777: 6, L0809: 5, L0744: 4, L0649: 2, L0659: 2, H0658: 2, L0748: 2, L0747: 2, L0750: 2, H0411: 1, H0013: 1, L0021: 1, H0123: 1, H0050: 1, H0163: 1, H0560: 1, L0763: 1, L0770: 1, L0769: 1, L0761: 1, L0662: 1, L0375: 1, L0776: 1, L0439: 1, L0749: 1, L0779: 1 and L0599: 1.	601313, 601785	
HODIY67	1056000	826	2 - 1957	3001	Ala-27 to Lys-35, Arg-63 to Ile-70, Tyr-100 to Ala-105, Ser-159 to Thr-168.	L0766: 6, L0776: 6, L0777: 5, L0803: 4, L0731: 3, L0759: 3, S0222: 2, H0013: 2, L0157: 2, L0805: 2, L0666: 2, H0521: 2, L0740: 2, L0361: 2, H0170: 1, H0171: 1,	15q	

HNTRS57	1056097	827	2 - 1357	3002	Asn-6 to Val-11.	S0212: 1, S0442: 1, S0358: 1, S0376: 1, S0444: 1, S0360: 1, L0717: 1, H0587: 1, S0414: 1, H0250: 1, H0427: 1, H0575: 1, H0596: 1, H0546: 1, S0003: 1, H0615: 1, H0644: 1, H0040: 1, H0477: 1, H0646: 1, H0538: 1, L0763: 1, L0638: 1, L0804: 1, L0774: 1, L0809: 1, L0519: 1, L0788: 1, L4501: 1, L0665: 1, S0374: 1, H0690: 1, H0648: 1, H0651: 1, S0328: 1, H0539: 1, S0404: 1, H0436: 1, L0750: 1, L0779: 1, S0434: 1, L0599: 1 and L0595: 1.		
						AR096: 2, AR060: 1, AR089: 1, AR039: 0, AR033: 0, AR104: 0, AR055: 0, AR061: 0 L0747: 16, L0758: 8, L0751: 7, L0774: 6, H0617: 5, L0803: 5, L0809: 5, L0794: 4.		

	L0766: 4, L0666: 4, L0777: 4, L0581: 4, H0265: 3, L0534: 3, H0004: 3, L0764: 3, H0682: 3, L0750: 3, S0212: 2, S0418: 2, S0358: 2, H0013: 2, H0424: 2, H0181: 2, H0616: 2, L0769: 2, L0761: 2, L0775: 2, L0375: 2, L0655: 2, L0657: 2, L0659: 2, L0663: 2, L0665: 2, H0547: 2, H0658: 2, H0670: 2, H0660: 2, H0648: 2, L0749: 2, L0752: 2, L0755: 2, L0759: 2, L0589: 2, L0608: 2, H0423: 2, H0624: 1, H0170: 1, H0556: 1, H0685: 1, H0717: 1, H0738: 1, H0341: 1, H0484: 1, S0442: 1, S0360: 1, H0393: 1, H0441: 1, H0392: 1, H0415: 1, H0587: 1, H0333: 1, S0280: 1, H0156: 1, H0599: 1, H0052: 1, H0205: 1, H0150: 1.
--	--

HUKFL74	1056102	828	1 - 177	3003	Arg-13 to Glu-21, Ser-36 to Gly-57.	H0375: 1, H0615: 1, H0644: 1, H0606: 1, H0038: 1, H0412: 1, H0494: 1, S0422: 1, S0426: 1, L0763: 1, L0770: 1, L0639: 1, L0662: 1, L0768: 1, L0649: 1, L0804: 1, L0805: 1, L0776: 1, L0783: 1, L0793: 1, L0664: 1, H0144: 1, S0374: 1, H0593: 1, S0126: 1, H0689: 1, H0539: 1, H0518: 1, S0013: 1, S0404: 1, H0576: 1, S0027: 1, L0786: 1, L0780: 1, L0731: 1, H0595: 1, L0601: 1, H0668: 1, H0653: 1, H0665: 1 and S0194: 1.	L0754: 8, L0741: 5, L0748: 5, L0756: 5, H0550: 4, L0751: 4, L0758: 4, H0265: 3, H0556: 3, L0806: 3, S0418: 2, T0010: 2, S0002: 2, L0777: 2, L0755: 2, H0445: 2, L0603: 2, H0170: 1,	19p13.1	143890, 151440, 600173, 600276, 600310, 600310, 601604, 601843
---------	---------	-----	---------	------	--	--	---	---------	---

HTBEF05	1056104	829	3 - 344	3004	Arg-7 to Thr-15, Leu-23 to Asp-30, Glu-37 to Val-48, Thr-54 to Pro-64,	L0615: 1, H0159: 1, S0040: 1, H0483: 1, H0254: 1, S0410: 1, H0734: 1, H0549: 1, H0574: 1, H0485: 1, H0013: 1, H0618: 1, H0052: 1, H0597: 1, H0150: 1, H0408: 1, H0416: 1, H0188: 1, H0252: 1, H0030: 1, H0644: 1, S0366: 1, H0634: 1, T0067: 1, H0059: 1, T0042: 1, H0560: 1, H0647: 1, L0763: 1, L0371: 1, L0637: 1, L0667: 1, L0800: 1, L0764: 1, L0771: 1, L0767: 1, L0768: 1, L0803: 1, L0776: 1, L0659: 1, L0789: 1, L0532: 1, L0665: 1, H0144: 1, H0698: 1, S0126: 1, S0392: 1, L0740: 1, L0747: 1, L0779: 1, L0757: 1 and S0436: 1.	AR061: 3, AR039: 3, AR089: 3, AR096: 2, AR053: 2, AR060: 2, AR055: 1, AR104: 1,	3p25	154705, 193300, 193300, 227646,
---------	---------	-----	---------	------	---	---	--	------	--

HOPKD19	1056275	830	158 - 1084	3005	Thr-103 to Thr-108.	AR033: 1 L0665: 4, H0659: 2, H0553: 1, H0038: 1, L0659: 1, L0777: 1, L0758: 1 and L0601: 1.		253260, 278720, 601154, 601253, 602011
					Ala-95 to Ser-101, Pro-103 to Asp-108, Glu-177 to Lys-183, Lys-226 to Lys-234, Leu-252 to Gly-257, Gln-293 to Ser-301.	H0556: 29, L0748: 28, L0745: 18, H0620: 16, H0040: 15, L0595: 14, H0547: 13, S0358: 12, L0777: 12, H0559: 11, S0046: 9, S0440: 9, L0740: 9, H0265: 8, H0494: 8, L0751: 8, H0341: 7, S0408: 7, L0646: 7, S0126: 7, L0746: 7, L0747: 7, H0543: 7, H0657: 6, H0318: 6, H0052: 6, H0135: 6, L0775: 6, L0655: 6, L0666: 6, H0519: 6, S0406: 6, S0045: 5, H0486: 5, H0581: 5, H0024: 5, L0375: 5, L0659: 5, H0520: 5, S0206: 5, L0750: 5, L0752: 5, T0002: 4, H0717: 4, H0484: 4, S0376: 4, H0497: 4, H0257: 4, H0545: 4, H0644: 4,	12p13	103950, 120580, 131440, 139130, 142680, 176260, 190450, 200990, 216950, 600228, 600414, 600618, 602096

	I0634: 4, H0087: 4, I0766: 4, L0805: 4, I0663: 4, I0144: 4, H0134: 4, S0028: 4, L0744: 4, L0757: 4, L0596: 4, L0588: 4, S0424: 4, S0116: 3, H0663: 3, I0125: 3, S0356: 3, S0410: 3, H0619: 3, H0549: 3, S0182: 3, H0009: 3, H0123: 3, I0266: 3, L0483: 3, T0006: 3, H0100: 3, S0150: 3, S0144: 3, S0344: 3, L0637: 3, L0772: 3, L0764: 3, L0662: 3, L0649: 3, S0328: 3, H0521: 3, L0754: 3, L0758: 3, S0434: 3, S0436: 3, L0592: 3, L0593: 3, H0667: 3, H0422: 3, H0352: 3, H0624: 2, H0713: 2, H0716: 2, H0656: 2, H0662: 2, H0638: 2, S0442: 2, S0360: 2, H0208: 2, S0222: 2, H0592: 2, L0623: 2, H0013: 2, H0635: 2	
--	---	--

828

					H0369: 1, H0550: 1, H0431: 1, H0600: 1, H0586: 1, H0587: 1, H0333: 1, H0643: 1, T0114: 1, H0101: 1, H0069: 1, H0599: 1, H0575: 1, H0036: 1, H0390: 1, H0196: 1, T0103: 1, T0115: 1, H0597: 1, H0231: 1, H0546: 1, H0046: 1, H0041: 1, H0178: 1, L0471: 1, H0023: 1, T0003: 1, H0057: 1, H0014: 1, H0201: 1, S0388: 1, H0071: 1, H0354: 1, H0355: 1, H0375: 1, S6028: 1, H0271: 1, H0687: 1, H0290: 1, H0286: 1, H0110: 1, S0022: 1, H0252: 1, H0615: 1, H0428: 1, H0213: 1, H0030: 1, L0142: 1, H0628: 1, L0055: 1, H0212: 1, H0708: 1, H0316: 1, H0038: 1, H0063: 1, T0067: 1, H0379: 1, H0264: 1, H0272: 1, H0487: 1
--	--	--	--	--	---

				H0433: 1, H0269: 1, H0412: 1, H0413: 1, H0623: 1, H0334: 1, H0561: 1, S0450: 1, H0633: 1, H0647: 1, H0646: 1, S0002: 1, L0369: 1, L0796: 1, L5575: 1, L0771: 1, L0363: 1, L0767: 1, L5564: 1, L0388: 1, L0776: 1, L0807: 1, L0518: 1, L0383: 1, L0382: 1, L0368: 1, L0793: 1, L0532: 1, L0665: 1, H0702: 1, S0374: 1, H0693: 1, L0438: 1, H0684: 1, H0670: 1, H0672: 1, H0651: 1, S0380: 1, S0152: 1, H0696: 1, S0044: 1, H0555: 1, L0609: 1, S3012: 1, S0037: 1, L0742: 1, L0756: 1, L0755: 1, L0731: 1, L0759: 1, S0031: 1, H0444: 1, L0584: 1, L0589: 1, L0594: 1, L0601: 1, H0136: 1, S0192: 1, S0194: 1 and H0423: 1.
--	--	--	--	---

HLICR58	1056290	831	3 - 932	3006	Ser-48 to Asp-53, Asn-63 to Arg-69, Lys-77 to Lys-82.	AR061: 7, AR089: 7, AR053: 5, AR060: 5, AR033: 4, AR096: 4, AR055: 4, AR039: 3, AR104: 3, AR052: 0 L0750: 33, L0588: 29, H0341: 22, L0361: 22, L0748: 19, H0657: 18, H0648: 18, S0360: 17, H0670: 17, S0358: 16, H0170: 15, H0144: 14, L0752: 14, L0757: 13, L0758: 13, S0007: 12, H0494: 12, L0520: 12, H0543: 12, L0471: 11, L0521: 11, L0767: 11, H0659: 11, L0749: 11, L0783: 10, H0305: 9, S0046: 9, H0615: 9, L0754: 9, H0624: 8, H0014: 8, L0663: 8, S0126: 8, H0672: 8, L0591: 8, L0604: 8, H0136: 8, S0045: 7, H0031: 7, H0633: 7, H0436: 7, S0028: 7, H0125: 6, S0132: 6, H0411: 6, H0392: 6, H0574: 6, T0109: 6, S0438: 6, L0762: 6,		
---------	---------	-----	---------	------	---	--	--	--

			L0517: 6, S0374: 6, H0660: 6, S0378: 6, S0027: 6, S0114: 5, H0333: 5, H0486: 5, H0545: 5, H0123: 5, H0328: 5, H0412: 5, H0413: 5, L0761: 5, L0776: 5, L0659: 5, L0526: 5, H0658: 5, S0380: 5, H0134: 5, L0740: 5, L0747: 5, L0605: 5, L0362: 5, H0422: 5, S0424: 5, H0686: 4, S0342: 4, S0376: 4, H0351: 4, H0586: 4, L0586: 4, H0250: 4, H0421: 4, H0009: 4, L0163: 4, H0083: 4, H0266: 4, S0022: 4, H0617: 4, H0135: 4, H0087: 4, H0116: 4, H0100: 4, L0662: 4, L0497: 4, L0655: 4, L0527: 4, L0657: 4, L0666: 4, H0666: 4, S0044: 4, H0576: 4, S3012: 4, S3014: 4, L0756: 4, H0171: 3, S6024: 3, H0484: 3, H0669: 3,					
--	--	--	--	--	--	--	--	--

	S0410: 3, H0497: 3, H0632: 3, L0623: 3, H0599: 3, H0575: 3, T0048: 3, H0581: 3, H0597: 3, H0039: 3, H0644: 3, H0163: 3, H0551: 3, T0067: 3, T0041: 3, H0509: 3, S0422: 3, H0529: 3, L0770: 3, L0769: 3, L0648: 3, L0768: 3, L0364: 3, L0375: 3, L0806: 3, L0782: 3, L0543: 3, H0682: 3, S0328: 3, S0330: 3, L0751: 3, S0031: 3, H0445: 3, H0595: 3, L0594: 3, S0026: 3, H0665: 3, H0423: 3, L0600: 3, T0002: 2, H0685: 2, H0294: 2, S0218: 2, H0650: 2, H0483: 2, H0255: 2, H0671: 2, H0662: 2, H0306: 2, H0402: 2, S0420: 2, H0580: 2, H0393: 2, H0438: 2, H0592: 2, H0587: 2, L0622: 2, T0060: 2, H0156: 2, H0098: 2,					
--	--	--	--	--	--	--

834

835

836

HAJAH48	1056400	833	1 - 210	3008	Lys-10 to Ser-16, Pro-30 to Ala-36.	I10539: 8, H0046: 3, H0039: 2, H0553: 2, I10090: 2, L0750: 2, L0605: 2, S0282: 1, H0431: 1, H0036: 1, H0421: 1, H0196: 1, T0003: 1, S6028: 1, H0252: 1, H0031: 1, H0111: 1, H0591: 1, H0412: 1, T0068: 1, S0044: 1, L0752: 1, H0445: 1 and L0581: 1.			
HSKJC61	1056407	834	210 - 1436	3009	His-8 to Gly-18, Pro-58 to Lys-68, Gln-109 to Lys-115, Val-175 to Pro-180, Ser-221 to Asp-228, Thr-256 to His-261, Asp-287 to Asp- 294, Thr-321 to Asp-328, Asn-349 to Ile-357, Phe-376 to Glu-386, Pro-396 to Ser-409.	AR089: 3, AR055: 3, AR096: 3, AR060: 2, AR061: 2, AR053: 2, AR039: 2, AR104: 2, AR033: 2 S0132: 2, S0358: 1, H0615: 1, T0023: 1, H0435: 1, S3014: 1, L0740: 1, L0591: 1 and L0362: 1.			
HEEBK29	1056454	835	1015 - 3060	3010			21q22.3		120220, 120240, 123580, 151385,

								171860, 190685, 236100, 236200, 240300, 267750, 600065, 601072, 601145
HCHMM19	1056617	836	1 - 1182	3011			L0751: 25, L0665: 23, H0656: 12, L0743: 10, H0617: 9, H0620: 8, L0657: 8, H0318: 7, H0658: 7, H0650: 5, H0483: 5, H0657: 4, H0012: 4, H0024: 4, H0689: 4, H0341: 3, H0484: 3, H0618: 3, H0253: 3, H0688: 3, H0659: 3, H0670: 3, L0603: 3, S0358: 2, H0052: 2, H0615: 2, H0264: 2, H0100: 2, L0763: 2, L0637: 2, L0651: 2, L0659: 2, L0791: 2, L0663: 2, H0555: 2, L0748: 2, L0779: 2, S0282: 1, H0255: 1, H0306: 1, S0045: 1, L0717: 1,	

839

HWHKD22	1056654	838	1287 - 601	3013	Arg-272 to Arg-279. Thr-32 to His-38, Thr-46 to Asn-55, Asn-158 to Gly-165, Thr-191 to Asn-199.	AR096: 14, AR089: 14, AR033: 10, AR061: 8, AR060: 8, AR052: 7, AR055: 6, AR053: 5, AR104: 3, AR039: 2 L0766: 3, L0659: 3, L0744: 3, L0794: 2, L0805: 2, L0665: 2, H0648: 2, H0305: 1, H0586: 1, H0599: 1, H0428: 1, H0551: 1, S0038: 1, S0422: 1, L0763: 1, L0637: 1, L0662: 1, L0803: 1, L0804: 1, L0806: 1, L0776: 1, L0655: 1, L0661: 1, L0787: 1, S0374: 1, H0520: 1, L0740: 1, L0750: 1, L0777: 1, L0752: 1, L0759: 1 and L0592: 1.		
						L0777: 6, L0766: 5, L0747: 5, L0744: 4, H0660: 3, L0750: 3, H0657: 2, L0769: 2, S0298: 1, S0360: 1, H0730: 1, H0592: 1, H0544: 1, H0629: 1,	18p11.3- p11.2	142946, 202200
HOCPJ87	1056666	839	22 - 1125	3014	Gln-5 to His-15, Phe-20 to Lys-41, Gln-43 to Tyr-49, Asn-146 to Thr-152, His-157 to Phe-164, Arg-181 to Gly-191, Lys-219 to Asn-224.			

[illegible]

	H0521: 4, S0434: 4, H0657: 3, H0497: 3, H0574: 3, H0328: 3, H0615: 3, H0644: 3, H0551: 3, L0770: 3, L0764: 3, L0665: 3, H0144: 3, S0374: 3, H0547: 3, H0659: 3, S0330: 3, L0752: 3, H0445: 3, S0436: 3, H0717: 2, H0638: 2, S0045: 2, L0717: 2, S0414: 2, H0485: 2, S0280: 2, H0156: 2, S0010: 2, H0032: 2, H0494: 2, S0440: 2, S0422: 2, L0667: 2, L0646: 2, L0768: 2, L0652: 2, L0438: 2, H0658: 2, H0539: 2, S0044: 2, H0555: 2, L0744: 2, L0751: 2, L0749: 2, L0777: 2, L0731: 2, L0758: 2, L0592: 2, L0581: 2, L0593: 2, H0653: 2, S0276: 2, H0543: 2, L0411: 1, H0556: 1, H0220: 1, H0738: 1, S0114: 1, T0049: 1,				
--	--	--	--	--	--

	H0583: 1, H0650: 1, S0116: 1, H0341: 1, S0212: 1, S0356: 1, S0354: 1, S0444: 1, S0360: 1, S0408: 1, H0722: 1, S0132: 1, H0619: 1, H0393: 1, H0437: 1, S0222: 1, H0431: 1, H0592: 1, H0586: 1, H0349: 1, H0036: 1, L0105: 1, T0048: 1, H0581: 1, H0374: 1, H0046: 1, H0123: 1, H0050: 1, L0471: 1, H0355: 1, S0250: 1, H0688: 1, H0029: 1, H0039: 1, L0483: 1, T0006: 1, H0553: 1, L0055: 1, H0169: 1, H0124: 1, H0068: 1, H0316: 1, H0591: 1, H0264: 1, H0268: 1, H0413: 1, H0056: 1, T0042: 1, S0016: 1, H0561: 1, S0438: 1, H0509: 1, S0150: 1, H0641: 1, H0646: 1, S0142: 1, S0344: 1, S0426: 1, L0371: 1, L0771: 1,					
--	--	--	--	--	--	--

HOSBJ18	1056672	841	422 - 2026	3016	Ile-15 to Lys-33, Phe-99 to Lys-104, Ile-107 to Cys-114.	L0521: 1, L0649: 1, L0389: 1, L0803: 1, L0804: 1, L0775: 1, L0661: 1, L0629: 1, L0657: 1, L0367: 1, L0789: 1, L0664: 1, H0520: 1, H0519: 1, H0593: 1, H0689: 1, H0670: 1, H0672: 1, S0378: 1, H0518: 1, S0152: 1, S0350: 1, H0522: 1, H0704: 1, S0406: 1, S0390: 1, S0027: 1, L0756: 1, L0779: 1, L0780: 1, L0757: 1, L0596: 1, L0588: 1, L0589: 1, L0366: 1, S0011: 1, S0026: 1, H0665: 1, S0194: 1, H0423: 1, S0424: 1 and H0008: 1, L0779: 8, L0665: 6, L0731: 6, L0662: 4, L0663: 4, L0754: 4, H0486: 3, H0013: 3, S6028: 3, H0031: 3, L0598: 3, L0776: 3, L0666: 3, H0144: 3, S0126: 3, S0026: 3, S0214: 2, H0428: 2,		
---------	---------	-----	------------	------	--	---	--	--

845

HUSGX12	1056736	842	2 - 838	3017	Arg-1 to Thr-6, Arg-86 to Gly-91, Ser-102 to Leu-107, Leu-111 to Arg-122, Arg-140 to Gly-145, Glu-170 to Ser-195, Pro-200 to Thr-221, Gly-234 to Asp-250.	L0750: 4, H0622: 3, L0792: 3, H0619: 2, H0050: 2, L0759: 2, H0624: 1, H0661: 1, L0005: 1, S0376: 1, S0360: 1, H0575: 1, H0597: 1, H0687: 1, H0412: 1, L0065: 1, L0761: 1, L0800: 1, L0794: 1, L0784: 1, L0807: 1, H0690: 1, H0672: 1, S0206: 1, L0748: 1, L0751: 1, L0747: 1, L0779: 1 and H0445: 1.		
HPDRG02	1056764	843	2 - 1405	3018		S0360: 18, L0794: 15, L0748: 13, L0740: 10, H0521: 9, L0666: 8, L0766: 7, L0439: 7, H0046: 6, H0031: 6, L0803: 6, L0783: 6, H0547: 6, S0436: 6, L0595: 6, H0318: 5, H0494: 5, L0769: 5, L0764: 5, L0779: 5, S0192: 5, H0486: 4, L0770: 4, H0658: 4, S0152: 4, L0751: 4, L0747: 4, L0750: 4, L0777: 4, L0757: 4,	7	

847

	H0672: 2, H0696: 2, S0406: 2, S0027: 2, L0753: 2, S0434: 2, L0587: 2, L0599: 2, L0608: 2, S0196: 2, H0543: 2, H0265: 1, S0040: 1, H0295: 1, H0294: 1, S0218: 1, S0001: 1, H0638: 1, L0534: 1, L0562: 1, S0354: 1, S0410: 1, H0208: 1, S0046: 1, S0132: 1, S0278: 1, H0261: 1, H0549: 1, H0550: 1, S0222: 1, H0610: 1, H0497: 1, H0333: 1, H0632: 1, H0485: 1, H0270: 1, H0156: 1, L0021: 1, S0010: 1, H0581: 1, H0052: 1, H0085: 1, H0596: 1, L0040: 1, H0231: 1, H0546: 1, H0569: 1, H0050: 1, H0012: 1, H0024: 1, H0015: 1, H0594: 1, H0266: 1, H0688: 1, H0622: 1, H0424: 1, L0055: 1, H0038: 1, H0087: 1, T0067: 1	
--	---	--

849

Arg-376 to Lys-384, Gln-393 to Ser-406, Ser-441 to Gly-453.	S0358: 2, S0222: 2, L0369: 2, L0771: 2, L0768: 2, L0804: 2, L0774: 2, L0775: 2, L0776: 2, L0663: 2, H0539: 2, L0742: 2, L0748: 2, L0439: 2, L0750: 2, L0756: 2, L0779: 2, H0170: 1, L0002: 1, L0785: 1, S0356: 1, S0360: 1, H0580: 1, H0411: 1, H0437: 1, H0586: 1, H0497: 1, H0013: 1, L0021: 1, H0263: 1, H0050: 1, S0388: 1, H0060: 1, H0674: 1, H0090: 1, H0591: 1, L0564: 1, S0440: 1, L0648: 1, L0521: 1, L0794: 1, L0806: 1, L0655: 1, L0657: 1, L0783: 1, L0809: 1, L0789: 1, L0664: 1, H0144: 1, H0519: 1, H0689: 1, H0683: 1, H0704: 1, H0555: 1, L0740: 1, L0745: 1, L0749: 1, L0731: 1, L0759: 1 and L0601: 1	147575, 153455, 159000, 179095, 181460, 192974, 192974, 600807, 601596, 602089
---	--	---

HHAWB19	1056774	845	3 - 1316	3020	Pro-1 to Pro-9.	S0418: 1, H0580: 1, S0278: 1, H0013: 1, H0046: 1 and H0547: 1.	1q42-q44	106150, 106150, 145260, 173870, 173870, 600759, 600996, 601744, 601975
HHATP38	1056786	846	3 - 650	3021	Arg-16 to Arg-22, Ser-52 to Lys-62, Ala-73 to Arg-78, Arg-153 to Leu-169, Arg-172 to Leu-195, Glu-203 to Arg-216.	AR104: 5, AR089: 5, AR060: 2, AR055: 2, AR096: 2, AR061: 1	11q13	102200, 106100, 131100, 131100, 131100, 131100, 133780, 147050, 153700, 161015, 164009, 168461, 168461, 168461, 180721, 180840, 191181, 193235, 209901, 232600, 259700, 259770,

HVVBE07	1056801	847	645 - 983	3022	Tyr-47 to Arg-58.	S0053: 3, H0551: 2, S0418: 1, S0046: 1, H0486: 1, H0355: 1, L0771: 1, H0672: 1, S0206: 1, L0605: 1 and S0276: 1.			600045, 600319, 600528, 601884
HKAHB85	1056804	848	1 - 831	3023	Val-212 to Phe-223.	L0731: 9, H0617: 7, L0769: 7, L0809: 6, L0806: 5, S0328: 5, L0745: 4, L0764: 3, L0754: 3, H0624: 2, S0360: 2, H0550: 2, H0333: 2, H0086: 2, H0011: 2, H0266: 2, H0615: 2, H0424: 2, H0494: 2, L0770: 2, L0794: 2, L0649: 2, L0803: 2, L0804: 2, L0774: 2, L0493: 2, L0666: 2, H0658: 2, L0742: 2, L0743: 2, L0747: 2, L0755: 2, L0757: 2, L0591: 2, L0593: 2, L0697: 2, S0424: 2, H0170: 1, H0556: 1, H0294: 1,	19p13.1	143890, 151440, 600173, 600276, 600310, 600310, 601604, 601843	

				H0341: 1, H0484: 1, H0483: 1, S0358: 1, S0376: 1, S0007: 1, H0370: 1, H0013: 1, H0706: 1, H0618: 1, H0253: 1, H0052: 1, H0085: 1, H0545: 1, H0012: 1, H0620: 1, H0024: 1, S0051: 1, H0687: 1, H0213: 1, H0031: 1, H0553: 1, H0181: 1, L0455: 1, H0334: 1, H0509: 1, L0772: 1, L0800: 1, L0768: 1, L0766: 1, L0805: 1, L0653: 1, L0776: 1, L0807: 1, L0658: 1, L0512: 1, L0659: 1, L0526: 1, L0783: 1, L0368: 1, L0789: 1, L0790: 1, L0665: 1, H0690: 1, H0435: 1, H0660: 1, H0539: 1, S0152: 1, H0521: 1, S0406: 1, L0751: 1, L0750: 1, L0779: 1, L0780: 1, L0752: 1, L0758: 1, L0587: 1, L0592: 1, L0599: 1 and L0603: 1.
--	--	--	--	---

HUSXA15	1056810	849	303 - 1	3024	S0212: 20, L0751: 14, L0663: 11, L0731: 11, H0083: 10, L0657: 10, L0666: 10, H0547: 10, H0550: 7, H0620: 6, L0769: 6, H0689: 6, H0123: 5, H0428: 5, L0662: 5, S0356: 4, H0059: 4, L0664: 4, H0520: 4, H0670: 4, L0581: 4, S0418: 3, L0717: 3, H0618: 3, H0494: 3, S0438: 3, L0770: 3, L0659: 3, H0683: 3, H0660: 3, L0747: 3, L0758: 3, S0434: 3, H0543: 3, H0624: 2, H0295: 2, H0341: 2, H0662: 2, S0358: 2, S0360: 2, H0675: 2, S0408: 2, H0251: 2, H0051: 2, H0594: 2, H0687: 2, H0615: 2, H0031: 2, H0413: 2, H0100: 2, L0637: 2, L0648: 2, L0803: 2, L0774: 2, L0783: 2, L0665: 2, S0374: 2, S0126: 2, H0658: 2, H0672: 2,	2q33-q34	100730, 118800, 123660, 135600, 157655, 186860, 201460, 205100, 213700, 262000, 600258, 601277, 601318
---------	---------	-----	---------	------	--	----------	--

855

									H0696: 1, H0555: 1, S0027: 1, L0748: 1, L0750: 1, L0779: 1, L0755: 1, H0445: 1, S0436: 1, L0597: 1, L0599: 1, H0542: 1 and S0384: 1.			
HNOCH54	1056839	850	1 - 1953	3025	Pro-8 to Glu-16, Lys-29 to Gly-34, Gly-85 to Glu-92, Lys-165 to Glu-172, Glu-180 to Ser-186, Ser-210 to Arg-215, Glu-278 to Gln-288, Lys-377 to Glu-383, Lys-405 to Gly-410, Lys-468 to Glu-474, Asn-483 to Arg-488, Gln-496 to Glu-502, Val-555 to Gly-561, Glu-611 to Pro-623, Lys-631 to Trp-638, Phe-641 to Gly-649.							
HOCPP16	1056856	851	1039 - 392	3026	Gly-20 to Tyr-30, Asn-40 to Glu-46, Ser-66 to Gly-75, Lys-85 to Gly-97, Glu-104 to Arg-115, Pro-135 to Pro-140, Pro-150 to Asn-159,				S0212: 20, L0751: 14, L0663: 11, L0731: 11, H0083: 10, L0657: 10, L0666: 10, H0547: 10, H0550: 7, H0620: 6, L0769: 6, H0689: 6, H0123: 5, H0428: 5,			

857

L0439: 11, L0743: 10, L0751: 10, H0295: 8, L0757: 8, S0212: 7, S0360: 7, L0662: 7, H0551: 6, H0494: 6, S0027: 6, L0779: 6, H0550: 5, H0575: 5, H0253: 5, H0039: 5, L0659: 5, H0521: 5, L0747: 5, S0408: 4, S0046: 4, H0427: 4, H0599: 4, H0546: 4, H0014: 4, L0764: 4, L0774: 4, L0438: 4, S0126: 4, H0672: 4, L0731: 4, S0434: 4, H0255: 3, H0662: 3, S0354: 3, S0358: 3, S0045: 3, H0370: 3, S0280: 3, H0309: 3, H0046: 3, H0266: 3, H0412: 3, H0413: 3, S0440: 3, H0509: 3, L0769: 3, L0775: 3, L0666: 3, H0520: 3, S0330: 3, H0539: 3, L0744: 3, L0777: 3, S0011: 3, S0192: 3, H0484: 2, H0661: 2, S0420: 2, S0356: 2	126452, 126452, 141900, 141900, 141900, 141900, 141900, 141900, 141900, 142000, 142000, 142200, 142250, 142270, 176730, 176730, 176730, 190020, 191290, 192500, 192500, 194071, 194071, 204500, 600856, 601680, 602631, 602631
--	---

		S0376: 2, S0410: 2, H0580: 2, S0007: 2, H0208: 2, S0132: 2, S0278: 2, H0549: 2, H0592: 2, H0486: 2, H0706: 2, H0590: 2, S0474: 2, H0251: 2, H0204: 2, H0544: 2, L0163: 2, H0188: 2, H0687: 2, H0622: 2, H0040: 2, H0560: 2, S0142: 2, S0210: 2, L0637: 2, L0768: 2, L0651: 2, L0527: 2, L0782: 2, L0783: 2, L0528: 2, L0663: 2, S0374: 2, H0547: 2, H0651: 2, L0602: 2, H0522: 2, H0555: 2, L0740: 2, L0754: 2, L0758: 2, S0196: 2, H0542: 2, H0624: 1, H0265: 1, S0040: 1, S0342: 1, H0713: 1, H0294: 1, H0583: 1, S0180: 1, S0001: 1, H0663: 1, H0664: 1, S0418: 1, S0444: 1, H0675: 1, H0619: 1, H0392: 1, T0104: 1,		
--	--	--	--	--

861

HE2OU10	1056875	853	79 - 480	3028	Gln-34 to Ala-45, Glu-47 to Leu-52, Lys-113 to Gln-121.	L0806: 1, L0654: 1, L0629: 1, L0657: 1, L0656: 1, L0809: 1, L0647: 1, L0790: 1, L0665: 1, H0593: 1, H0689: 1, H0690: 1, H0435: 1, H0670: 1, S0328: 1, S0378: 1, S0380: 1, H0696: 1, S0406: 1, H0478: 1, H0631: 1, S012: 1, S0028: 1, S0206: 1, L0750: 1, L0755: 1, L0759: 1, L0596: 1, L0597: 1, S0026: 1, H0665: 1, H0543: 1 and S0424: 1.	22q13.2- q13.31	188826, 250100, 250800, 250800
---------	---------	-----	----------	------	---	---	--------------------	---

								S0144: 1, S0002: 1, I0775: 1, H0691: 1, H0659: 1, H0648: 1, S0350: 1, S3012: 1, L0748: 1, L0740: 1, L0754: 1, L0747: 1, L0750: 1, L0753: 1, L0755: 1, L0758: 1 and S0276: 1.			
HODGM46	1056927	854	884 - 738	3029	Ser-13 to His-19, Gly-41 to Arg-49.			H0615: 3			
HODFR44	1056990	855	2 - 469	3030	Arg-17 to Lys-33.			AR055: 28, AR053: 28, AR033: 26, AR052: 22, AR089: 20, AR061: 13, AR060: 13, AR039: 11, AR096: 10, AR104: 5 L0751: 4, L0439: 3, L0777: 3, L0779: 2, L0758: 2, H0650: 1, H0328: 1, H0615: 1, L0435: 1, L0769: 1, L0649: 1, L0650: 1, L0774: 1, L0376: 1, L0789: 1 and H0343: 1.			
HCHND12	1057009	856	100 - 333	3031	Arg-27 to Trp-35.			H0664: 9, H0370: 8, H0059: 8, H0483: 4, S0410: 4, L0751: 4, L0747: 4, L0750: 4, H0484: 3, L0664: 3,	17q11.2- 17q12	144200, 148066, 148066, 148067, 148067,	

								L0731: 1, L0605: 1 and L0600: 1.			
HBHAC29	1057157	857	2 - 553	3032				S0051: 4, H0441: 3, S0036: 3, L0769: 3, L0438: 3, L0439: 3, H0687: 2, L0665: 2, S0031: 2, S6024: 1, S0029: 1, H0455: 1, H0052: 1, L0638: 1, L0639: 1, S0053: 1 and L0742: 1.	19q13.1	164731, 172400, 172400, 180901, 180901, 221770, 248600, 600918, 602716	
HTPFW87	1057170	858	2 - 2206	3033			Ala-65 to Gly-77, Leu-79 to Lys-85, Gln-95 to Asp-103, Gln-113 to Ser-119, Ser-230 to Gly-235, Lys-358 to Phe-368, Gln-397 to Thr-407, Pro-474 to Val-484, Asn-494 to Asp- 505, Glu-513 to Gly-521, Ser-532 to Arg-539, Thr-557 to Thr-562, Pro-566 to Glu-571, Pro-577 to Glu-582.	H0622: 42, S0380: 10, S0368: 3, H0040: 1, H0519: 1 and S0378: 1.			
HISAF60	1057212	859	2 - 988	3034			Arg-8 to Pro-18, Asp-76 to Arg-83, Glu-85 to Thr-94, Arg-139 to Ile-145,	AR039: 13, AR033: 12, AR104: 11, AR053: 10, AR055: 9, AR052: 9, AR089: 9, AR096:			

Gln-180 to Asp-196, Thr-201 to Ser-213, Lys-230 to Gln-235, Asn-293 to Gly-309, Thr-315 to Phe-321.	8, AR060: 5, AR061: 3 L0731: 12, L0747: 9, H0651: 5, L0759: 5, H0644: 4, H0013: 3, L0748: 3, L0439: 3, L0779: 3, H0575: 2, H0052: 2, H0327: 2, H0050: 2, H0083: 2, L0769: 2, L0662: 2, L0438: 2, H0539: 2, L0743: 2, L0750: 2, L0588: 2, H0716: 1, L0002: 1, L0443: 1, S0001: 1, S0360: 1, H0645: 1, H0411: 1, H0587: 1, H0333: 1, H0486: 1, S0010: 1, S0050: 1, H0051: 1, H0428: 1, H0553: 1, H0032: 1, L0455: 1, S0036: 1, H0038: 1, H0412: 1, H0413: 1, H0100: 1, T0042: 1, L0770: 1, L0637: 1, L0766: 1, L0649: 1, L0774: 1, L0776: 1, L0655: 1, L0659: 1, L0783: 1, L0529: 1, L5623: 1, L0790: 1,
---	---

								L0791: 1, H0520: 1, H0519: 1, H0593: 1, H0689: 1, H0670: 1, H0672: 1, H0696: 1, S3014: 1, L0741: 1, L0744: 1, L0757: 1, L0608: 1 and S0398: 1.			
HRABO80	1057219	860	1521 - 1937	3035	Ala-1 to Ser-7, Gln-108 to Ser-117.			L0743: 4, L0751: 4, H0252: 3, L0659: 3, H0586: 2, H0135: 2, H0038: 2, L0438: 2, H0670: 2, L0779: 2, H0624: 1, S0430: 1, S0222: 1, H0052: 1, L0471: 1, T0010: 1, H0428: 1, H0616: 1, T0067: 1, L0564: 1, H0646: 1, L0662: 1, L0774: 1, L0783: 1, H0144: 1, S0126: 1, H0660: 1, H0651: 1, H0555: 1, L0749: 1, L0750: 1, L0752: 1, L0758: 1 and S0194: 1.			
HADDF30	1057260	861	1 - 1155	3036	Arg-49 to Leu-55, Arg-61 to Cys-69, Arg-87 to Arg-102, Asn-119 to Lys-125, Cys-132 to Met-151, Ser-157 to Gln-164.			L0777: 3, L0803: 2, L0774: 2, L0602: 2, L0596: 2, L0588: 2, S0376: 1, H0431: 1, H0427: 1, H0266: 1, H0328: 1, H0615: 1.	3q24-q28	106165, 117700, 117700, 165500, 169600, 180380,	

						Asn-187 to Gln-210, Glu-235 to Thr-243, Lys-245 to Val-251, His-256 to Ser-268, Ser-277 to Ser-288, Leu-303 to Gln-317, Glu-328 to Gln-341, Ser-350 to Leu-355, Ser-357 to Asn-364.				180380, 180380, 276902, 600700, 601199, 601199, 601199, 601682
HDAAS58	1057272	862	245 - 460	3037	Asn-37 to Arg-45.	AR096: 4, AR089: 2, AR033: 2, AR060: 1, AR053: 1, AR055: 1, AR061: 1, AR104: 1, AR039: 0, AR052: 0 H0052: 4, L0768: 3, L0766: 3, L0438: 3, L0748: 3, L0750: 3, H0657: 2, H0341: 2, H0484: 2, T0042: 2, L0665: 2, H0658: 2, L0743: 2, L0744: 2, L0756: 2, L0777: 2, H0556: 1, H0656: 1, S0420: 1, H0393: 1, L0717: 1, S0222: 1, H0497: 1, H0486: 1, H0013: 1, H0263: 1, N0006: 1, L0579: 1, H0620: 1, L0163: 1, H0594: 1, H0267: 1,				

									H0615: 1, H0688: 1, H0494: 1, H0538: 1, L0769: 1, L0772: 1, L0643: 1, L0794: 1, L0649: 1, L0804: 1, L0774: 1, L0375: 1, L0776: 1, L0789: 1, L0792: 1, L0666: 1, H0144: 1, H0520: 1, H0711: 1, H0690: 1, L0439: 1, L0754: 1, L0745: 1, L0747: 1, L0786: 1, L0780: 1, L0752: 1, H0542: 1 and H0352: 1.			
HSDZG15	1057307	863	3 - 737	3038	Thr-92 to Gln-106, Val-222 to Val-227, Glu-229 to Asp-245.				H0556: 1, H0455: 1 and H0660: 1.			
HPDVY52	1057393	864	3 - 1391	3039					H0550: 3, L0751: 3, S0356: 2, H0024: 2, H0014: 2, H0059: 2, H0689: 2, H0690: 2, H0661: 1, H0645: 1, H0549: 1, H0052: 1, H0172: 1, H0123: 1, H0081: 1, H0266: 1, H0288: 1, H0553: 1, H0135: 1, H0494: 1, H0646: 1, L0649: 1, H0593: 1, H0682: 1,	20q13.2- q13.3	118504, 118504, 131242, 139320, 139320, 139320, 139320, 602025, 602235	

HHESW02	1057478	865	2 - 1252	3040	Arg-20 to Gly-28, Gln-41 to Asn-55, Asp-62 to Thr-74, Gln-105 to Thr-118, Ala-144 to Ser-158, Gln-200 to Gln-205, Cys-212 to Gly-217, Pro-231 to Phe-238, Gln-259 to Gln-264, Gln-282 to Tyr-288, Lys-300 to Asn-305, His-351 to Thr-358, Arg-399 to Cys-407.	H0658: 1, H0672: 1, H0555: 1, L0439: 1, L0747: 1, S0276: 1 and H0506: 1. H0556: 7, H0543: 7, H0265: 3, S0278: 3, S0002: 3, H0445: 3, H0657: 2, H0663: 2, H0580: 2, S0003: 2, H0090: 2, S0144: 2, S0152: 2, S0206: 2, H0542: 2, H0656: 1, H0125: 1, H0351: 1, H0575: 1, S0182: 1, H0023: 1, H0373: 1, H0375: 1, H0591: 1, H0040: 1, H0264: 1, T0041: 1, T0042: 1, S0142: 1, H0521: 1, H0214: 1, H0436: 1, L0750: 1, L0757: 1, S0242: 1, H0423: 1 and H0422: 1.			
HVVBW84	1057561	866	327 - 1625	3041	Cys-24 to Gly-35, Ala-42 to Gln-47, Gln-181 to Asp-188, Val-264 to Pro-270, Asn-289 to Gly-294, Leu-325 to Tyr-330, Gly-353 to Leu-360,	L0751: 19, L0659: 9, H0550: 8, H0545: 6, S0360: 5, H0620: 5, H0309: 4, H0050: 4, H0135: 4, L0754: 4, L0747: 4, L0731: 4, H0170: 3, H0253: 3,			

871

							L0789: 1, L0666: 1, L0663: 1, L0438: 1, H0684: 1, H0651: 1, S0044: 1, L0744: 1, L0584: 1, L0485: 1, L0361: 1, S0194: 1 and H0008: 1.		
HEAAC39	1057603	867	1365 - 1511	3042	Arg-12 to Gln-25, Gly-31 to Gly-38.		AR039: 5, AR053: 5, AR089: 4, AR060: 3, AR061: 3, AR055: 2, AR096: 1, AR033: 1, AR104: 0 L0747: 4, L0777: 3, L0657: 2, L0759: 2, L0811: 1, H0369: 1, L0021: 1, S0346: 1, H0009: 1, L0637: 1, L0772: 1, L0375: 1, L0783: 1, L0809: 1, H0659: 1, H0660: 1, L0731: 1 and L0758: 1.		
HSLJC80	1057797	868	143 - 1945	3043	His-12 to Ala-26, Ser-70 to Gln-78, Pro-87 to Pro-94.		AR055: 5, AR060: 5, AR061: 5, AR052: 4, AR033: 4, AR089: 3, AR053: 3, AR096: 2, AR039: 2, AR104: 1 H0550: 9, H0651: 6, S0358: 5, L0659: 5, H0549: 3, H0586: 3, L0662: 3, L0794: 3,		

873

874

875

HAZAE42	1057915	871	3 - 659	3046	<p>Glu-140 to Lys-145, Lys-163 to Asp-168, Lys-189 to Phe-197, Arg-257 to Leu-264, Gln-285 to Asp-292, Gly-298 to Ala-308, Arg-314 to Glu-323, Gly-329 to Gly-338, Ser-343 to Leu-353.</p> <p>Pro-8 to Gly-18, Pro-57 to Ser-67, Lys-183 to Trp-191.</p>	<p>L0768: 7, L0750: 6, L0783: 5, H0687: 4, H0428: 4, L0770: 4, H0672: 4, H0031: 3, L0767: 3, L0776: 3, L0665: 3, H0539: 3, L0749: 3, L0755: 3, L0731: 3, L0759: 3, L0608: 3, H0333: 2, H0046: 2, H0009: 2, T0006: 2, H0644: 2, H0059: 2, L0386: 2, L0805: 2, L0809: 2, H0547: 2, L0742: 2, L0747: 2, L0779: 2, L0752: 2, H0624: 1, H0686: 1, H0656: 1, L0778: 1, H0662: 1, H0393: 1, H0369: 1, H0550: 1, H0441: 1, H0574: 1, H0632: 1,</p>		
---------	---------	-----	---------	------	--	--	--	--

HPRBN60	1057948	872	3 - 1019	3047	Phe-1 to Cys-8, Ala-10 to Gly-23, Gln-114 to Lys-120, Glu-129 to Phe-135, Ile-155 to Gln-160, Ser-193 to Thr-199, Asp-214 to Gly-226, Asp-236 to Gly-245, Ala-283 to Arg-288, Ala-322 to Asp-331.	H0421: 1, H0544: 1, H0123: 1, L0471: 1, H0012: 1, H0356: 1, H0213: 1, H0087: 1, T0069: 1, H0100: 1, H0494: 1, H0509: 1, H0646: 1, S0210: 1, L0520: 1, L0625: 1, L0763: 1, L0371: 1, L0764: 1, L0794: 1, L0774: 1, L0633: 1, L0655: 1, L0807: 1, L0537: 1, H0144: 1, H0691: 1, H0520: 1, H0690: 1, H0670: 1, S0328: 1, S0378: 1, S0380: 1, L0777: 1, L0780: 1, L0753: 1, L0758: 1 and L0697: 1.	4q35	158900, 229000, 264900
HOVCZ68	1057958	873	1 - 987	3048	Arg-20 to Arg-26,	L0439: 9, H0550: 6, S0366: 6, S0364: 4, H0644: 3, S0358: 2, H0549: 2, H0645: 1, S0222: 1, H0370: 1, H0050: 1, L0471: 1, S0362: 1, H0039: 1, H0032: 1, H0212: 1, H0379: 1, L0438: 1 and S0044: 1.		
						H0574: 5, S0126: 4,		

					Ser-47 to Thr-59, Val-83 to Cys-91, Asn-94 to Arg-100, Asp-120 to Asn-126, Cys-135 to Gln-140, Gln-146 to Cys-153, Pro-184 to Gln-189, Lys-246 to Cys-252, Cys-259 to Asp-265, Ile-304 to Tyr-319.	L0748: 4, L0777: 4, L0759: 4, T0039: 3, H0428: 3, H0644: 3, S0194: 3, H0393: 2, H0331: 2, H0632: 2, L0021: 2, L0632: 2, L0805: 2, L0776: 2, H0436: 2, L0779: 2, H0171: 1, H0685: 1, H0661: 1, S0132: 1, H0333: 1, H0013: 1, H0546: 1, H0011: 1, H0024: 1, S0250: 1, H0038: 1, H0551: 1, T0067: 1, H0494: 1, S0210: 1, L0761: 1, L0794: 1, L0517: 1, L0790: 1, L0791: 1, L0665: 1, H0144: 1, H0689: 1, S0152: 1, L0747: 1, H0653: 1, S0192: 1, S0276: 1 and S0196: 1.		
H6EDF71	1057979	874	2 - 1120	3049	Asp-17 to Gly-23, Lys-89 to Asp-94, Lys-129 to Asp-134, Leu-195 to Gln-204.	L0777: 6, L0666: 3, H0648: 3, H0672: 3, L0747: 3, H0685: 2, S0376: 2, H0553: 2, S0440: 2, H0529: 2, L0775: 2, L0788: 2, L0665: 2, S0152: 2	3q13.1- q13.2	600467, 600882

HCOOF60	1058001	875	1 - 855	3050	<p>Gly-28 to Ser-36, Trp-38 to Pro-60, Pro-98 to Thr-104, Pro-113 to Tyr-118, Phe-133 to Gly-140, Pro-186 to Leu-192, Gln-239 to Gly-246, Pro-257 to Lys-269, Lys-273 to Lys-279.</p>	<p>L0599: 2, H0624: 1, H0265: 1, H0222: 1, H0713: 1, H0638: 1, S0354: 1, S0360: 1, S0408: 1, H0370: 1, H0559: 1, H0486: 1, H0581: 1, H0567: 1, H0083: 1, S0003: 1, H0674: 1, H0090: 1, L0475: 1, S0438: 1, S0002: 1, L0646: 1, L0521: 1, L0766: 1, L0651: 1, L0783: 1, L0663: 1, S0374: 1, H0519: 1, H0658: 1, H0696: 1, S0044: 1, S0406: 1, L0750: 1, L0755: 1, H0445: 1, L0366: 1, H0667: 1, S0276: 1, H0543: 1, H0423: 1 and H0506: 1.</p>	<p>L0499: 33, L0493: 25, L0514: 10, H0484: 8, H0620: 6, L0769: 6, S0418: 5, S0356: 5, L0766: 5, L0515: 5, L0747: 5, L0779: 5, H0543: 5, H0559: 4, H0618: 4, H0617: 4, H0087: 4, S0422: 4,</p>	17
---------	---------	-----	---------	------	---	---	---	----

880

881

882

883

	H0589: 1, H0458: 1, H0459: 1, H0638: 1, L0005: 1, S0442: 1, S0376: 1, S0444: 1, S0408: 1, S0410: 1, H0489: 1, H0637: 1, S0007: 1, S0045: 1, S0046: 1, S0140: 1, L0476: 1, H0411: 1, S0278: 1, H0550: 1, H0441: 1, H0404: 1, H0600: 1, H0574: 1, H0485: 1, T0039: 1, T0040: 1, L0586: 1, H0069: 1, H0427: 1, S0280: 1, L0021: 1, H0098: 1, H0575: 1, H0004: 1, S0010: 1, S0346: 1, L0105: 1, S0474: 1, S0049: 1, H0251: 1, H0309: 1, T0115: 1, L0738: 1, H0530: 1, L0041: 1, H0009: 1, H0562: 1, H0172: 1, H0620: 1, H0199: 1, H0024: 1, H0057: 1, H0014: 1, H0051: 1, S0051: 1, H0355: 1, H0510: 1, S6028: 1, H0267: 1	
--	---	--

	S0318: 1, S0316: 1, H0687: 1, S0003: 1, H0328: 1, H0039: 1, H0622: 1, L0194: 1, H0030: 1, H0031: 1, L0142: 1, H0617: 1, H0169: 1, L0455: 1, H0124: 1, H0316: 1, H0090: 1, H0591: 1, H0551: 1, H0488: 1, H0413: 1, T0004: 1, T0041: 1, T0042: 1, L0475: 1, H0625: 1, S0370: 1, S0464: 1, S0440: 1, H0509: 1, S0150: 1, H0130: 1, S0208: 1, UNKWN: 1, L0520: 1, L0763: 1, L0631: 1, L0637: 1, L5575: 1, L0641: 1, L0771: 1, L0773: 1, L0648: 1, L0521: 1, L0662: 1, L0767: 1, L0775: 1, L0378: 1, L0806: 1, L0606: 1, L0661: 1, L0657: 1, L0542: 1, L0384: 1, L0528: 1, L0647: 1, L0367: 1, L0787: 1, L0789: 1, L0532: 1,	
--	--	--

HSPTJ51	1058172	877	3 - 1004	3052	Gly-6 to Gly-15, Pro-17 to Leu-22, Trp-25 to Leu-70, Asp-72 to Val-86, Asp-151 to Asn-170, Ala-183 to Gln-198, Pro-221 to Pro-227, Pro-236 to Gly-244, Pro-272 to Gly-281, Pro-304 to Asp-318.	H0697: 1, H0702: 1, H0699: 1, S0374: 1, H0723: 1, H0689: 1, H0682: 1, H0659: 1, H0658: 1, H0670: 1, S0328: 1, H0539: 1, H0710: 1, H0696: 1, H0215: 1, H0631: 1, L0751: 1, L0777: 1, L0753: 1, L0757: 1, S0031: 1, S0260: 1, L0686: 1, H0707: 1, S0434: 1, S0436: 1, L0480: 1, L0589: 1, L0605: 1, L0595: 1 and S0011: 1.	3p23-p21	139330, 139360, 150250, 164500, 182280, 227646, 261510, 600163, 600971, 601154, 601226, 601267, 601373
---------	---------	-----	----------	------	---	---	----------	--

887

HOPKC80	1058174	878	240 - 980	3053	Pro-1 to Ser-6, Pro-25 to Cys-31, Arg-142 to Lys-150, Pro-223 to Arg-232.	L0776: 1, L0659: 1, L0793: 1, L0666: 1, L0663: 1, L0664: 1, L0665: 1, H0144: 1, H0693: 1, H0520: 1, H0519: 1, H0682: 1, H0658: 1, H0670: 1, S0330: 1, S0380: 1, H0696: 1, S0146: 1, H0631: 1, H0345: 1, S0027: 1, L0744: 1, S0260: 1, H0445: 1, H0707: 1, L0595: 1, L0366: 1, S0011: 1, H0668: 1, H0543: 1, L0697: 1, S0398: 1, S0452: 1 and H0352: 1, S0408: 20, L0751: 11, S0358: 8, S0442: 5, S0444: 5, L0775: 5, L0776: 5, S0440: 4, L0659: 4, L0666: 4, L0755: 4, L0596: 4, S0356: 3, S0376: 3, L0771: 3, L0768: 3, L0774: 3, L0743: 3, L0748: 3, H0550: 2, L0373: 2, L0372: 2, L0665: 2, S0374: 2, H0684: 2, H0648: 2,	17p13	138190, 254210, 271900, 600179, 600977, 601202, 601777
---------	---------	-----	-----------	------	--	---	-------	--

889

Arg-239 to Gly-245.	L0774: 2, H0660: 2, S0378: 2, S3014: 2, L0751: 2, L0749: 2, L0779: 2, L0758: 2, L0759: 2, H0295: 1, H0583: 1, S0212: 1, H0484: 1, H0255: 1, S0442: 1, S0358: 1, S0444: 1, S0360: 1, H0549: 1, H0333: 1, L0622: 1, H0486: 1, T0060: 1, H0427: 1, L0021: 1, H0194: 1, H0309: 1, H0546: 1, H0050: 1, L0471: 1, H0051: 1, S0388: 1, H0399: 1, H0375: 1, H0252: 1, H0428: 1, H0039: 1, H0553: 1, H0163: 1, H0616: 1, H0087: 1, H0494: 1, H0714: 1, S0438: 1, S0440: 1, H0633: 1, H0646: 1, S0144: 1, S0002: 1, S0426: 1, L0639: 1, L5566: 1, L0772: 1, L0648: 1, L0386: 1, L0650: 1, L0653: 1, L0655: 1, L0657: 1, L0659: 1,
---------------------	--

HPCTP25	1058287	880	3 - 1553	3055	Ser-89 to Met-94, Val-331 to Lys-339, Leu-344 to Met-350, Glu-386 to Tyr-394, Phe-480 to Gly-493.	L0789: 1, L0793: 1, L0664: 1, H0144: 1, H0593: 1, H0682: 1, H0670: 1, H0651: 1, S0330: 1, S0152: 1, H0521: 1, S0037: 1, S0027: 1, S0206: 1, L0743: 1, L0740: 1, L0747: 1, L0756: 1, H0595: 1 and H0653: 1.	1q22-q23	104770, 107300, 107670, 110700, 131210, 134638, 136132, 145001, 146740, 146740, 146740, 146790, 159440, 159440, 159440, 173610, 176310, 186780, 191030, 191315.
---------	---------	-----	----------	------	---	---	----------	--

892

							L0656: 1, L0518: 1, L0783: 1, L0647: 1, L0663: 1, L0664: 1, L0665: 1, H0144: 1, L0438: 1, H0520: 1, H0547: 1, H0593: 1, H0689: 1, S0330: 1, S0004: 1, S0044: 1, H0694: 1, S0406: 1, H0478: 1, S3014: 1, S0032: 1, UNKWN: 1, L0749: 1, L0758: 1, S0031: 1, S0260: 1, L0608: 1 and H0667: 1.			
HODKM52	1058305	881	13 - 999	3056	Arg-1 to Val-6.		H0059: 6, H0370: 5, L0646: 2, L0754: 2, H0664: 1, S0376: 1, H0156: 1, H0615: 1, H0688: 1, H0030: 1, H0494: 1, L0764: 1, L0662: 1, L0664: 1, H0682: 1 and H0666: 1.			
HCONB89	1058316	882	1 - 1302	3057				8p22-p21.3	148370, 238600, 238600, 238600, 238600, 600143, 601385, 602629	

HSABJ44	1058413	883	11 - 925	3058	Gly-1 to Lys-10, Glu-29 to His-36, Gly-43 to Asn-63, Ala-74 to Leu-84, Leu-132 to Asn-142, Pro-189 to Pro-194, Asp-196 to Ser-209, Pro-252 to Gly-268, Thr-271 to Lys-278, Pro-292 to Gln-300.	L0777: 9, L0751: 8, H0046: 5, H0550: 4, L0665: 4, H0521: 4, L0750: 4, H0623: 3, H0435: 3, H0658: 3, S0436: 3, S0212: 2, H0580: 2, H0619: 2, T0039: 2, H0427: 2, H0266: 2, S0438: 2, L0772: 2, L0659: 2, L0666: 2, L0663: 2, S0374: 2, S0152: 2, H0696: 2, H0555: 2, L0749: 2, L0731: 2, L0758: 2, L0596: 2, L0599: 2, S0192: 2, H0685: 1, S0040: 1, H0717: 1, S0116: 1, H0483: 1, H0255: 1, H0661: 1, H0663: 1, S0442: 1, S0358: 1, S0360: 1, S0408: 1, H0728: 1, L0717: 1, H0586: 1, H0618: 1, H0318: 1, H0263: 1, H0544: 1, H0510: 1, H0290: 1, S0368: 1, H0424: 1, H0553: 1, H0606: 1, H0032: 1, H0316: 1, H0634: 1,	12p13	103950, 120580, 131440, 139130, 142680, 176260, 190450, 200990, 216950, 600228, 600414, 600618, 602096
---------	---------	-----	----------	------	---	--	-------	--

895

[illegible]

897

Arg-325 to Asp-330,	L0751: 3, L0750: 3,
Arg-332 to Phe-338,	S0358: 2, H0431: 2,
Arg-358 to Lys-368,	H0622: 2, L0637: 2,
Cys-433 to Asn-441,	L0375: 2, L0776: 2,
Leu-456 to Asp-461,	L0666: 2, H0648: 2,
	H0672: 2, S3014: 2,
	L0741: 2, L0740: 2,
	L0731: 2, T0002: 1,
	S0040: 1, S6024: 1,
	S0116: 1, H0664: 1,
	S0418: 1, S0360: 1,
	S0046: 1, L0717: 1,
	S6016: 1, H0331: 1,
	H0632: 1, H0559: 1,
	H0486: 1, H0013: 1,
	S0010: 1, H0318: 1,
	S0049: 1, H0434: 1,
	L0041: 1, L0471: 1,
	S0362: 1, H0051: 1,
	S0388: 1, S6028: 1,
	H0266: 1, H0687: 1,
	H0615: 1, S0364: 1,
	H0551: 1, H0272: 1,
	S0038: 1, H0100: 1,
	L0351: 1, H0560: 1,
	S0438: 1, H0509: 1,
	H0652: 1, S0142: 1,
	S0344: 1, S0426: 1,
	L0769: 1, L0638: 1,
	L0667: 1, L0373: 1,

HFIVR61	1058451	886	157 - 777	3061	Pro-27 to Lys-32, Pro-37 to Ser-44, Glu-46 to Gln-51, Arg-63 to Asn-71, Gln-125 to Ala-135, Gln-150 to Asn-155.	L0372: 1, L0764: 1, L0771: 1, L0648: 1, L0521: 1, L0363: 1, L0803: 1, L0650: 1, L0775: 1, L0788: 1, L0664: 1, H0660: 1, L0743: 1, L0753: 1, L0480: 1, L0595: 1 and S0460: 1.	L0372: 1, L0764: 1, L0771: 1, L0648: 1, L0521: 1, L0363: 1, L0803: 1, L0650: 1, L0775: 1, L0788: 1, L0664: 1, H0660: 1, L0743: 1, L0753: 1, L0480: 1, L0595: 1 and S0460: 1.	153880, 601622, 601649
						AR096: 10, AR089: 8, AR039: 7, AR061: 7, AR053: 6, AR052: 5, AR033: 5, AR060: 3, AR104: 3, AR055: 3, S0242: 271, S0196: 77, H0551: 32, S0003: 13, H0634: 11, H0635: 10, H0250: 7, H0069: 7, L0757: 6, H0486: 5, H0623: 5, H0386: 4, S0418: 2, H0411: 2, S0214: 2, H0628: 2, L0649: 2, L0803: 2, L0789: 2, H0265: 1, H0556: 1, H0140: 1, S0040: 1, S0298: 1, H0638: 1, S0376: 1, H0637: 1, S0046: 1, H0431: 1, H0461: 1, L0021: 1, H0318: 1,	7p21	

HVVBX28	1058458	887	2 - 493	3062		H0123: 1, H0200: 1, H0109: 1, H0615: 1, H0111: 1, S0015: 1, L0800: 1, L0644: 1, L0766: 1, L0804: 1, L0633: 1, S0126: 1 and L0780: 1. L0748: 13, L0731: 13, L0749: 7, L0744: 6, L0438: 5, L0740: 5, L0768: 3, L0747: 3, L0758: 3, S0360: 2, L0717: 2, S0022: 2, L0638: 2, H0547: 2, L0743: 2, L0439: 2, L0754: 2, L0604: 2, H0656: 1, H0013: 1, H0427: 1, H0098: 1, S0010: 1, H0014: 1, H0687: 1, H0163: 1, H0561: 1, H0509: 1, H0652: 1, H0538: 1, L0598: 1, L0770: 1, L0769: 1, L0637: 1, L0771: 1, L0363: 1, L0381: 1, L0375: 1, L0806: 1, L0659: 1, L0789: 1, L0665: 1, H0144: 1, H0670: 1, H0672: 1, S0146: 1.	21q22.1- q22.2	147450, 176261, 253270, 601399
---------	---------	-----	---------	------	--	---	-------------------	---

								H0555: 1, L0750: 1, L0756: 1, L0777: 1, L0753: 1, L0755: 1, L0757: 1, L0759: 1, L0597: 1 and S0276: 1.			
HVVBI38	1058475	888	258 - 2291	3063	Pro-27 to Lys-35.			AR089: 2, AR096: 2, AR060: 1, AR053: 1, AR061: 1, AR033: 0, AR055: 0, AR104: 0, AR039: 0 S0358: 5, H0596: 2, H0059: 2, S0354: 1, H0263: 1, L0738: 1, L0639: 1, L0764: 1, L0767: 1, L0768: 1, L0659: 1, S0374: 1, H0660: 1, H0672: 1, S0380: 1 and L0731: 1.			
HUKEJ46	1058539	889	242 - 1165	3064				L0655: 10, L0664: 9, L0751: 8, H0521: 7, S0360: 5, H0486: 5, L0777: 4, H0657: 3, H0638: 3, H0087: 3, L0763: 3, L0743: 3, L0748: 3, L0599: 3, H0662: 2, H0637: 2, H0581: 2, H0090: 2, L0768: 2, L0651: 2, L0653: 2, L0659: 2,			106300, 108800, 120290, 120290, 120810, 120820, 142857, 142858, 150270, 167250, 170261,
HDTFT47	1058588	890	2 - 274	3065	Trp-1 to Glu-9, Thr-29 to Val-35, Arg-73 to Thr-79.				6p21.3		

902

HSSFS71	1058596	891	2 - 499	3066	Glu-42 to Leu-48, His-56 to Cys-62, Ala-107 to Pro-119.	H0555: 1, L0741: 1, L0744: 1, L0731: 1, H0595: 1 and H0543: 1. AR055: 18, AR033: 9, AR096: 5, AR104: 5, AR089: 4, AR060: 4, AR052: 2, AR039: 2, AR061: 2, AR053: 1 H0617: 22, H0424: 13, L0439: 12, H0618: 9, H0658: 9, L0751: 9, H0265: 8, L0666: 7, S0126: 7, S0046: 6, S0222: 6, H0031: 6, L0803: 6, L0731: 6, H0009: 5, L0769: 5, L0758: 5, S0420: 4, H0370: 4, L0163: 4, H0553: 4, H0135: 4, L0805: 4, L0657: 4, L0809: 4, L0779: 4, H0483: 3, H0150: 3, H0266: 3, L0663: 3, H0670: 3, L0755: 3, H0717: 2, L0415: 2, H0661: 2, S0444: 2, S0045: 2, H0549: 2, H0486: 2, H0156: 2, H0599: 2, S0049: 2, H0373: 2, T0010: 2,	14q32.3		

904

								H0051: 1, S0051: 1, H0284: 1, H0428: 1, H0182: 1, H0606: 1, H0124: 1, H0616: 1, H0087: 1, H0056: 1, H0100: 1, L0370: 1, S0208: 1, L0369: 1, L0520: 1, L0763: 1, L0770: 1, L5575: 1, L5566: 1, L0804: 1, L0775: 1, L0776: 1, L0655: 1, L0383: 1, L0352: 1, H0690: 1, H0660: 1, S0328: 1, S0330: 1, H0696: 1, H0479: 1, H0627: 1, S0037: 1, L0744: 1, L0748: 1, L0777: 1, L0759: 1, H0445: 1, S0436: 1, L0608: 1, L0601: 1, S0242: 1 and H0352: 1.		
HSDJH63	1058612	892	153 - 1358	3067	Thr-17 to Lys-23, Lys-93 to Arg-98.	AR039: 28, AR053: 20, AR055: 19, AR033: 17, AR052: 16, AR089: 15, AR104: 12, AR061: 12, AR096: 11, AR060: 11 H0615: 2, L0766: 2, S0114: 1, H0650: 1				

HAHGD24	1058622	893	2 - 1027	3068	Pro-17 to Arg-25, Ala-61 to Trp-72, Gln-96 to Pro-111, Gln-210 to Pro-215.	H0657: 1, L0791: 1, H0689: 1, S0152: 1, S0260: 1 and H0445: 1, L0666: 3, L0657: 2, H0689: 2, H0555: 2, L0751: 2, S0001: 1, S0360: 1, H0675: 1, S0132: 1, H0549: 1, S0222: 1, H0333: 1, T0114: 1, H0599: 1, L0022: 1, H0594: 1, H0688: 1, S0364: 1, H0100: 1, H0561: 1, S0382: 1, L0637: 1, L0761: 1, L0649: 1, L0788: 1, L0789: 1, L0665: 1, H0547: 1, H0690: 1, H0658: 1, H0660: 1, H0672: 1, H0539: 1, H0696: 1, L0743: 1, L0754: 1 and L0780: 1.		
HTAEV85	1058723	894	426 - 238	3069		H0052: 20, H0264: 5, H0194: 4, T0010: 4, H0435: 4, H0436: 4, H0543: 4, S0222: 3, L0439: 3, H0069: 2, H0618: 2, H0581: 2, H0012: 2, H0617: 2, H0087: 2, S0038: 2		

								L0438: 2, H0689: 2, L0741: 2, H0423: 2, H0422: 2, H0265: 1, S0001: 1, S0282: 1, H0619: 1, H0250: 1, H0635: 1, H0156: 1, S0049: 1, H0597: 1, H0327: 1, S0388: 1, S0051: 1, H0271: 1, S0036: 1, H0135: 1, H0063: 1, H0116: 1, H0652: 1, L0652: 1, L0517: 1, H0539: 1, H0518: 1, L0758: 1, H0445: 1, L0592: 1 and L0366: 1.			
HPMME44	1058928	895	9 - 338	3070				H0265: 1, H0050: 1, H0644: 1, S0150: 1, H0521: 1, H0542: 1 and S0424: 1.			
HEEAZ17	1058949	896	2184 - 2426	3071				L0758: 7, L0666: 5, L0749: 4, L0779: 4, H0620: 3, L0540: 3, L0439: 3, L0750: 3, L0731: 3, L0759: 3, S0360: 2, L0763: 2, L0770: 2, L0803: 2, L0775: 2, L0805: 2, L0776: 2, L0665: 2, L0743: 2, L0747: 2,			

HPSG28	1058977	897	474 - 1679	3072	Asp-33 to Arg-39, Ala-43 to Leu-48, Glu-256 to Gln-266, Gly-305 to Ile-311, Pro-314 to Ala-320, Gln-388 to Asn-394.	L0756: 2, S0040: 1, H0662: 1, S0045: 1, H0549: 1, H0550: 1, H0370: 1, T0060: 1, L0022: 1, H0615: 1, H0135: 1, H0488: 1, H0623: 1, H0059: 1, H0022: 1, L0520: 1, L0640: 1, L0769: 1, L0772: 1, L0662: 1, L0768: 1, L0766: 1, L0804: 1, L0774: 1, L0655: 1, L0809: 1, L4501: 1, L0663: 1, L0664: 1, H0144: 1, H0547: 1, S0330: 1, H0539: 1, H0696: 1, L0744: 1, L0748: 1, L0751: 1 and L0757: 1.	17q23-q25	106180, 114290, 138033, 138700, 139250, 150200, 154275, 162100, 170500, 170500, 170500.
--------	---------	-----	------------	------	--	--	-----------	---

				L0752: 3, L0758: 3, L0362: 3, S0430: 2, H0341: 2, S0358: 2, S0474: 2, H0052: 2, H0046: 2, L0471: 2, H0356: 2, H0284: 2, H0553: 2, H0063: 2, H0646: 2, L0761: 2, L0768: 2, L0776: 2, L0657: 2, L0659: 2, L0664: 2, L0565: 2, H0520: 2, H0519: 2, H0689: 2, H0658: 2, H0521: 2, H0696: 2, S0044: 2, S0027: 2, L0747: 2, L0749: 2, L0591: 2, L0604: 2, H0423: 2, L0615: 1, H0685: 1, H0713: 1, H0483: 1, H0255: 1, H0663: 1, H0306: 1, S0420: 1, S0444: 1, H0580: 1, S0007: 1, H0393: 1, H0411: 1, S0278: 1, H0441: 1, H0392: 1, H0438: 1, H0586: 1, H0331: 1, T0109: 1, H0013: 1, H0427: 1, L0021: 1, H0575: 1, H0618: 1,	176960, 180860, 249000, 253250, 264470
--	--	--	--	--	--

910

HTGFW12	1059006	898	2 - 1450	3073	Gly-1 to Leu-6.	I10683: 1, I10435: 1, I10670: 1, H0672: 1, I10539: 1, H0710: 1, S0152: 1, S0350: 1, I10522: 1, H0576: 1, I10612: 1, I10741: 1, I10748: 1, L0756: 1, S0434: 1, L0596: 1, L0599: 1, S0011: 1, H0668: 1, H0653: 1, I10667: 1, H0136: 1, S0192: 1, S0276: 1 and H0422: 1. AR060: 23, AR104: 21, AR089: 11, AR061: 8, AR096: 7, AR055: 6 L0803: 10, L0451: 8, S0250: 6, L0804: 6, L0731: 5, S0212: 4, I10431: 4, H0547: 4, L0439: 4, L0777: 4, S0360: 3, L0776: 3, L0592: 3, H0717: 2, S0116: 2, S0046: 2, H0004: 2, H0046: 2, L0471: 2, H0553: 2, H0090: 2, H0063: 2, L0638: 2, L0662: 2, L0774: 2, L0775: 2.		
---------	---------	-----	----------	------	-----------------	--	--	--

912

HOFMT75	1059050	899	1 - 465	3074	Ala-18 to Gly-23.	L0750: 1, L0779: 1, L0780: 1, L0755: 1, L0758: 1, L0759: 1, S0260: 1, H0445: 1, S0434: 1, L0593: 1, S0192: 1, S0194: 1, H0423: 1, S0424: 1 and H0506: 1.	L0750: 1, L0779: 1, L0780: 1, L0755: 1, L0758: 1, L0759: 1, S0260: 1, H0445: 1, S0434: 1, L0593: 1, S0192: 1, S0194: 1, H0423: 1, S0424: 1 and H0506: 1.	11p15.5	125852, 126452, 126452, 141900, 141900, 141900, 141900, 141900, 142000, 142000, 142200, 142250, 142270, 176730, 176730, 176730, 190020, 191290, 192500, 192500, 194071,
						AR039: 2, AR089: 1, AR060: 1, AR033: 1, AR096: 0, AR061: 0, AR053: 0, AR055: 0, AR104: 0 H0415: 1 and L0751: 1.			

							194071, 204500, 600856, 601680, 602631, 602631
HARNB17	1059085	900	241 - 501	3075	Arg-1 to Gly-6.	AR089: 7, AR053: 7, AR060: 5, AR039: 5, AR096: 5, AR104: 5, AR033: 5, AR055: 4, AR061: 2 L0439: 7, L0803: 6, L0599: 3, S0360: 2, L0794: 2, H0659: 2, L0747: 2, H0423: 2, H0662: 1, L0717: 1, H0351: 1, H0592: 1, H0085: 1, H0674: 1, H0551: 1, S0422: 1, L0761: 1, L0372: 1, L0767: 1, L0653: 1, L0776: 1, L0659: 1, H0144: 1, H0651: 1, H0436: 1, S0432: 1, L0740: 1, L0754: 1, L0779: 1, L0780: 1, L0731: 1, S0436: 1 and S0026: 1.	
HPDRG65	1059102	901	437 - 285	3076		H0658: 2	
HAOSG15	1059145	902	1 - 1776	3077		L0754: 23, L0747: 19, 2	

H0584: 18, L0731: 17,
S0372: 16, L0766: 14,
L0740: 12, L0749: 12,
L0752: 12, S0358: 11,
L0750: 11, S0360: 9,
H0013: 9, S0003: 9,
H0341: 8, S0420: 8,
H0038: 8, H0144: 8,
L0593: 8, H0040: 7,
L0665: 7, L0755: 7,
L0757: 7, L0591: 7,
L0608: 7, L0438: 6,
L0439: 6, L0759: 6,
S0026: 6, S0424: 6,
H0052: 5, L0748: 5,
L0751: 5, L0777: 5,
L0758: 5, L0362: 5,
H0543: 5, H0556: 4,
H0663: 4, H0333: 4,
H0545: 4, H0266: 4,
H0591: 4, L0771: 4,
L0774: 4, L0776: 4,
L0666: 4, H0521: 4,
L0745: 4, L0588: 4,
L0594: 4, H0140: 3,
H0686: 3, S0007: 3,
S0045: 3, H0411: 3,
S0222: 3, H0431: 3,
H0575: 3, L0471: 3,
T0003: 3, S6028: 3,

	H0188: 3, H0687: 3, S0214: 3, H0615: 3, H0622: 3, H0413: 3, H0494: 3, S0422: 3, L0769: 3, L0783: 3, L0744: 3, L0753: 3, H0445: 3, L0592: 3, L0361: 3, L0697: 3, H0624: 2, H0170: 2, H0265: 2, T0002: 2, H0218: 2, S0040: 2, H0657: 2, S0354: 2, S0376: 2, H0393: 2, L0717: 2, H0497: 2, H0574: 2, H0486: 2, H0599: 2, S0010: 2, S0346: 2, H0318: 2, H0288: 2, S0022: 2, H0428: 2, H0039: 2, T0006: 2, H0617: 2, H0674: 2, H0135: 2, H0616: 2, S0382: 2, S0326: 2, S0002: 2, L0763: 2, L0638: 2, L0764: 2, L0521: 2, L0662: 2, L0649: 2, L0775: 2, L0651: 2, L0606: 2, L0657: 2, L0526: 2, H0670: 2, H0660: 2, H0672: 2,	
--	--	--

917

	H0328: 1, L0483: 1, H0553: 1, H0628: 1, H0673: 1, H0598: 1, H0163: 1, H0090: 1, H0634: 1, H0264: 1, H0272: 1, H0412: 1, H0059: 1, S0038: 1, L0351: 1, L0564: 1, T0041: 1, S0016: 1, H0560: 1, S0464: 1, S0466: 1, L0065: 1, H0132: 1, H0131: 1, H0633: 1, S0144: 1, S0142: 1, S0426: 1, L0598: 1, L0520: 1, L0762: 1, L0770: 1, L0761: 1, L0772: 1, L0646: 1, L0648: 1, L0768: 1, L0794: 1, L0388: 1, L0803: 1, L0527: 1, L0656: 1, L0634: 1, L0518: 1, L0382: 1, L0809: 1, L0791: 1, L0664: 1, L0565: 1, H0693: 1, H0520: 1, H0547: 1, H0593: 1, S0126: 1, H0659: 1, H0648: 1, S0328: 1, S0330: 1, H0539: 1, L0602: 1.
--	--

								H0436: 1, H0478: 1, H0627: 1, S0322: 1, S3014: 1, S0028: 1, S0206: 1, S0032: 1, L0742: 1, L0756: 1, L0780: 1, H0343: 1, L0589: 1, L0595: 1, S0011: 1, H0668: 1, S0242: 1, S0194: 1, S0276: 1, H0422: 1 and L0698: 1.			
HHEND31	1059180	903	76 - 1827	3078	Asn-1 to Gln-6, Thr-71 to Ala-77, Cys-114 to Ser-126, Pro-147 to Tyr-156, Gly-176 to Gly-182.			AR089: 4, AR039: 3, AR033: 2, AR096: 2, AR104: 2, AR060: 2, AR053: 2, AR061: 1, AR055: 0 S0040: 1, S0114: 1, H0412: 1, S0386: 1, S0472: 1, L0649: 1, L0803: 1, S0053: 1, L0748: 1 and H0543: 1.			
HBMSN62	1059186	904	1000 - 1254	3079	Pro-6 to Lys-19.			L0754: 4, L0766: 3, L0803: 3, H0648: 3, L0758: 3, L0800: 2, L0775: 2, L0666: 2, L0747: 2, L0779: 2, S0116: 1, S0358: 1, H0574: 1, L0021: 1, L0022: 1, S0003: 1, H0615: 1, L0351: 1,			

								L0667: 1, L0764: 1, L0768: 1, L0806: 1, L0379: 1, L0659: 1, L0647: 1, L0791: 1, L0792: 1, L0663: 1, L0664: 1, L0665: 1, S0330: 1, L0748: 1, L0439: 1, L0777: 1 and L0599: 1.			
HOVCJ46	1059241	905	2 - 358	3080	Ser-38 to Gly-43, Gln-80 to Ile-93, Leu-104 to Arg-109.			L0769: 6, L0757: 5, L0777: 3, L0731: 3, H0428: 2, L0809: 2, S0404: 2, L0748: 2, L0758: 2, H0575: 1, H0251: 1, H0085: 1, H0644: 1, H0646: 1, L0773: 1, L0662: 1, L0768: 1, L0775: 1, L0782: 1, L0783: 1, L0384: 1, S0126: 1, L0747: 1, L0749: 1 and L0779: 1.			
HWLEP14	1059394	906	32 - 1348	3081	Pro-11 to Arg-21, Gly-34 to Ser-41, Pro-65 to Asn-72, Ser-80 to Gln-85, Phe-124 to Cys-129.			AR089: 2, AR053: 2, AR061: 2, AR039: 2, AR060: 2, AR096: 1, AR033: 1, AR055: 1, AR104: 1, AR052: 0 L0664: 3, S0354: 2, H0617: 2, L0509: 2, H0670: 2, L0601: 2,			

							H0170: 1, H0510: 1, H0622: 1, H0604: 1, L0662: 1, H0689: 1 and H0683: 1.		
HTFNO73	1059415	907	802 - 491	3082		Gly-1 to Asn-7, Lys-12 to Gln-20, Asn-34 to Gly-41, Val-79 to Asn-88.	AR096: 2, AR089: 1, AR055: 1, AR033: 0, AR060: 0, AR061: 0, AR052: 0, AR104: 0, AR053: 0 H0666: 15, H0622: 5, L0809: 3, L0731: 2, H0586: 1, H0032: 1, H0488: 1, L3905: 1, L0766: 1, L0803: 1, L0804: 1, L0656: 1, L0659: 1, H0648: 1, L0779: 1, L0777: 1, L0758: 1, L0759: 1, H0707: 1, S0424: 1 and H0506: 1.		
HDABR73	1059532	908	382 - 1191	3083		Ser-1 to Trp-7, Asp-47 to Ile-52, Pro-70 to Ser-80, Cys-89 to Thr-98, Ala-131 to Ser-142, Phe-169 to Cys-176, Gly-183 to Ser-193, Phe-202 to Pro-209, Arg-243 to Ala-249, Ser-256 to Lys-265.	H0494: 21, H0529: 16, L0755: 16, S0358: 15, H0435: 13, L0665: 11, L0747: 11, L0752: 11, H0521: 10, L0649: 9, S0360: 8, L0662: 8, L0659: 8, L0601: 8, S0354: 7, L0754: 7, H0663: 6, S0376: 6, S0444: 6, H0592: 6,	19q13.1	164731, 172400, 172400, 180901, 180901, 221770, 248600, 600918, 602716

922

	H0059: 2, H0633: 2, H0646: 2, S0422: 2, L0763: 2, L0771: 2, L0382: 2, S0052: 2, H0144: 2, S0310: 2, H0689: 2, H0658: 2, H0670: 2, H0660: 2, S0328: 2, H0522: 2, H0696: 2, H0478: 2, L0744: 2, L0749: 2, L0731: 2, L0759: 2, S0434: 2, H0543: 2, S0424: 2, H0506: 2, S0430: 1, H0650: 1, H0657: 1, S0116: 1, H0484: 1, T0008: 1, S0132: 1, H0550: 1, H0486: 1, T0114: 1, L0021: 1, H0318: 1, H0309: 1, H0263: 1, H0234: 1, H0596: 1, H0597: 1, H0121: 1, H0150: 1, L0471: 1, H0375: 1, H0687: 1, H0428: 1, H0039: 1, H0622: 1, H0033: 1, H0644: 1, H0032: 1, H0673: 1, H0169: 1, S0036: 1, H0616: 1, T0067: 1, H0264: 1,				
--	--	--	--	--	--

924

Arg-148 to Tyr-155, Ser-158 to Gly-165, Ala-168 to Lys-178, His-215 to Ile-221, Ser-236 to Tyr-241, Ala-278 to Gly-287, Gly-294 to Asp-299, Glu-306 to Ser-313, Ser-374 to Arg-382, Ala-411 to Pro-416, Cys-423 to Arg-430, Thr-452 to Cys-462, Glu-479 to Gln-499, Gly-501 to Gly-507.	L0438: 4, H0264: 3, H0265: 2, H0261: 2, S0222: 2, T0010: 2, L0770: 2, L0764: 2, L0648: 2, H0547: 2, H0682: 2, H0672: 2, L0748: 2, L0756: 2, S0031: 2, H0423: 2, H0556: 1, H0295: 1, S0134: 1, S0282: 1, H0255: 1, H0661: 1, H0663: 1, S0356: 1, S0360: 1, H0619: 1, L0717: 1, S6014: 1, H0415: 1, H0643: 1, H0486: 1, H0156: 1, H0618: 1, S0010: 1, H0581: 1, S0049: 1, H0457: 1, H0050: 1, H0012: 1, H0320: 1, H0354: 1, H0271: 1, L0140: 1, H0063: 1, H0272: 1, H0494: 1, H0646: 1, L0761: 1, L0644: 1, L0771: 1, L0774: 1, L0788: 1, H0698: 1, H0593: 1, H0658: 1, H0648: 1, S0328: 1, S0330: 1, H0518: 1, L0744: 1,					
--	--	--	--	--	--	--

HTJMV05	1059692	910	2 - 685	3085			L0439: 1, L0749: 1, L0758: 1, L0759: 1 and S0260: 1. H0083: 17, H0556: 14, H0265: 7, L0794: 6, H0271: 5, H0543: 5, L0766: 4, L0809: 4, H0436: 3, H0635: 2, H0150: 2, S0114: 1, H0650: 1, H0645: 1, S0222: 1, H0438: 1, H0594: 1, H0416: 1, H0615: 1, H0033: 1, H0087: 1, H0488: 1, S0440: 1, S0142: 1, L0764: 1, L0803: 1, L0655: 1, L0657: 1, L0656: 1, L0659: 1, L0783: 1, L0790: 1, L0663: 1, L0665: 1, S0216: 1, H0670: 1, L0758: 1, H0595: 1, H0542: 1, H0423: 1 and H0422: 1.			
HOOIL70	1059710	911	134 - 1996	3086	Pro-19 to Ala-24, Pro-57 to Asp-64, Pro-125 to His-138, Ser-177 to Ala-182, Asn-257 to Ala-266, Glu-275 to Asn-284,	L0749: 6, L0761: 4, H0657: 3, S0142: 3, L0766: 3, L0655: 3, L0777: 3, L0599: 3, H0556: 2, S0358: 2, H0457: 2, L0769: 2,	12p13	103950, 120580, 131440, 139130, 142680, 176260,		

					Arg-288 to Lys-303, Pro-340 to Lys-345, Arg-378 to Cys-387, His-411 to Arg-419, Ile-462 to Ser-468, Gln-553 to Ile-565, Lys-577 to Val-589, His-594 to Lys-621.	L0794: 2, L0499: 2, L0653: 2, L0776: 2, L0659: 2, H0648: 2, H0521: 2, H0555: 2, L0747: 2, L0750: 2, H0445: 2, H0650: 1, H0656: 1, H0255: 1, S0356: 1, S0140: 1, L0717: 1, S0278: 1, S0280: 1, H0274: 1, H0050: 1, H0015: 1, H0083: 1, H0688: 1, H0606: 1, H0124: 1, T0067: 1, S0002: 1, S0426: 1, L0763: 1, L0772: 1, L0771: 1, L0784: 1, L0629: 1, L0382: 1, L0663: 1, L0665: 1, H0689: 1, H0672: 1, H0522: 1, H0436: 1, L0780: 1, L0752: 1, L0731: 1 and H0422: 1.	190450, 200990, 216950, 600228, 600414, 600618, 602096
HUNAE87	1059743	912	146 - 955	3087	Asn-1 to Asp-6, Pro-16 to Gly-22, Tyr-28 to Glu-34, Thr-44 to Val-57, Arg-96 to Pro-106, Leu-118 to His-123, Pro-125 to Ser-146,	L0748: 19, L0754: 15, H0046: 13, L0751: 10, H0013: 8, S0152: 8, H0623: 7, H0644: 6, L0662: 6, L0666: 6, L0438: 6, L0740: 6, L0747: 6, S0358: 5,	11q11 106100

928

929

930

H1PHO01	1059764	913	2 - 1081	3088	Pro-81 to Lys-89, Cys-91 to Leu-100, Asp-103 to Ile-110, Pro-179 to Pro-184, Arg-194 to Met-199, Pro-203 to Arg-213, Pro-249 to Ala-262, Ser-274 to Gln-279, Asp-301 to Trp-309, Pro-335 to Ser-343.	H0008: 1, AR096: 5, AR055: 3, AR089: 3, AR061: 3, AR053: 2, AR033: 2, AR060: 2, AR039: 1, AR104: 1, AR052: 0, H0599: 25, L0731: 19, L0750: 14, L0754: 13, L0766: 8, L0776: 8, L0752: 8, L0757: 8, L0747: 6, L0744: 5, L0769: 4, L0779: 4, L0777: 4, S0420: 3, L0770: 3, L0755: 3, L0758: 3, L0471: 2, L0771: 2, L0775: 2, L0806: 2, L0659: 2, S0126: 2, H0670: 2, L0743: 2, L0759: 2, L0604: 2, H0624: 1, H0685: 1, H0650: 1, H0484: 1, H0483: 1, H0661: 1, S0358: 1, S0360: 1, S0046: 1, H0411: 1, H0632: 1, H0427: 1, S0280: 1, H0097: 1, H0004: 1, S0049: 1, H0024: 1, H0028: 1, H0022: 1, L0142: 1, H0708: 1,	3q13.3-q21	106165, 117700, 117700, 126451, 150210, 169600, 180380, 180380, 180380, 190000, 203500, 232050, 276902, 600882, 601199, 601199, 601199, 601471, 601682
---------	---------	-----	----------	------	---	--	------------	--

							H0591: 1, L0763: 1, L0772: 1, L0800: 1, L0764: 1, L0662: 1, L0768: 1, L0794: 1, L0803: 1, L0774: 1, L0807: 1, L0809: 1, L0666: 1, L0665: 1, S0148: 1, S0328: 1, S0406: 1, S3014: 1, S0027: 1, S0028: 1, L0599: 1, S0026: 1 and H0667: 1.			
HDPWK69	1059784	914	206 - 496	3089			S0001: 1, H0125: 1, H0580: 1, H0581: 1, H0457: 1, H0428: 1, L0627: 1, H0521: 1 and L0749: 1.			
HPCOK03	1059849	915	8 - 1267	3090	Asp-19 to Ile-26, Lys-86 to Leu-96, Pro-108 to Leu-119, Ser-121 to Gln-144, Ser-243 to Ala-251, Pro-299 to Thr-305, Asn-349 to Ser-359, Leu-381 to Pro-389, Asn-403 to Ser-420.	L0748: 19, L0758: 6, L0794: 5, L0766: 5, L0749: 4, H0038: 3, H0494: 3, L0771: 3, H0520: 3, H0288: 2, H0551: 2, L0665: 2, L0438: 2, H0547: 2, H0659: 2, L0591: 2, L0595: 2, H0177: 1, S0418: 1, S0046: 1, H0393: 1, L0717: 1, H0370: 1, T0039: 1, T0114: 1, H0318: 1,	20q13.2- q13.3	118504, 118504, 131242, 139320, 139320, 139320, 139320, 602025, 602235		

HVVP14	1059852	916	3 - 935	3091	Pro-26 to Ser-35, Lys-46 to Arg-63, Ile-71 to Asp-76, Lys-105 to Ile-115, Glu-119 to Tyr-125, His-136 to His-141, Leu-148 to Arg-154, Thr-165 to Glu-170, Asp-194 to Gly-201, Glu-216 to Pro-222, Ser-227 to Phe-232, Arg-236 to Glu-248, Glu-271 to Lys-282, Ala-297 to Leu-311.	T0110: 1, H0553: 1, H0412: 1, H0413: 1, H0623: 1, S0112: 1, T0042: 1, H0529: 1, L0369: 1, L0769: 1, L0646: 1, L0800: 1, L0805: 1, L0655: 1, L0657: 1, L0787: 1, L0789: 1, H0702: 1, H0684: 1, H0648: 1, S0152: 1, H0522: 1, H0626: 1, L0751: 1, L0747: 1, L0777: 1, L0608: 1, H0668: 1 and H0667: 1.			102772, 106210, 106210, 106210, 106210, 107271, 114550, 115500, 136530, 151390, 179615, 179615, 179616, 180385, 194070.
						L0754: 10, H0251: 9, L0591: 9, S0212: 8, S0003: 7, L0771: 7, S0192: 7, L0805: 6, H0616: 5, L0776: 5, H0689: 5, L0747: 5, L0777: 5, L0757: 5, L0759: 5, H0624: 4, S0420: 4, S0360: 4, L0471: 4, H0124: 4, H0551: 4, H0413: 4, L0769: 4, L0517: 4, S0126: 4, S0314: 4, L0756: 4, L0755: 4, L0731: 4, S0045: 3.	11p13		

L0411: 1, H0556: 1, T0002: 1, H0685: 1, S0040: 1, H0295: 1, H0341: 1, H0661: 1, S0354: 1, S0408: 1, T0008: 1, S0132: 1, H0393: 1, H0640: 1, H0411: 1, H0437: 1, H0549: 1, H0550: 1, S0222: 1, H0431: 1, H0455: 1, H0559: 1, H0485: 1, H0599: 1, S0010: 1, H0309: 1, H0596: 1, L0738: 1, H0545: 1, H0150: 1, H0123: 1, H0620: 1, H0024: 1, H0266: 1, T0006: 1, H0644: 1, L0142: 1, H0628: 1, L0455: 1, S0015: 1, H0560: 1, H0561: 1, S0440: 1, H0641: 1, S0142: 1, L0598: 1, H0529: 1, L0770: 1, L0639: 1, L0637: 1, L0374: 1, L0521: 1, L0794: 1, L0766: 1, L0784: 1, L0806: 1, L0655: 1, L0526: 1, L0519: 1, L0529: 1,							
--	--	--	--	--	--	--	--

936

																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			</
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	----

HTEPP27	1060415	923	12 - 605	3098	Ala-67 to Tyr-72, Glu-75 to Asn-81, Glu-176 to Lys-187.	H0684: 1, H0660: 1, H0555: 1, L0741: 1, L0751: 1 and H0543: 1. L0766: 7, L0803: 5, L0809: 5, L0779: 5, L0756: 4, S0380: 3, L0439: 3, L0759: 3, S0442: 2, H0031: 2, H0591: 2, H0616: 2, L0789: 2, L0438: 2, L0754: 2, L0755: 2, L0731: 2, L0758: 2, H0171: 1, H0657: 1, L2250: 1, H0024: 1, H0169: 1, H0372: 1, L0769: 1, L0637: 1, L0774: 1, L0805: 1, L0776: 1, L0527: 1, L0666: 1, S0374: 1, L0352: 1, H0547: 1, H0670: 1, H0660: 1, H0648: 1, H0539: 1, H0522: 1, L0748: 1, L0752: 1, H0445: 1, H0667: 1 and H0543: 1.			
HLYAJ79	1060495	924	218 - 292	3099	Lys-10 to Ser-19.	S0388: 5, H0594: 4, S0282: 3, H0598: 3, S0344: 3, S0136: 3, H0395: 2, S0280: 2, H0597: 2, S0194: 2.	17p13.3	113721, 247200, 600059, 601545	

939

HWMGI5I	1060711	926	1 - 618	3101	Tyr-23 to Arg-29, Gln-57 to Cys-65, Cys-164 to Trp-169.	H0651: 1, H0521: 1, L0744: 1, L0439: 1, L0731: 1 and L0605: 1, L0805: 9, L0776: 8, H0585: 7, L0731: 7, L0751: 3, L0747: 3, S0282: 2, H0606: 2, H0038: 2, L0769: 2, L0803: 2, L0809: 2, H0690: 2, L0777: 2, L0752: 2, L0758: 2, L0601: 2, H0170: 1, S0358: 1, S0360: 1, S0007: 1, S0476: 1, S0278: 1, H0370: 1, H0559: 1, L0622: 1, L0623: 1, T0114: 1, H0427: 1, L0021: 1, H0204: 1, H0086: 1, H0178: 1, S0051: 1, H0688: 1, H0213: 1, H0163: 1, H0087: 1, H0494: 1, S0440: 1, L0535: 1, L3904: 1, L0764: 1, L0662: 1, L0794: 1, L0774: 1, L0375: 1, L0376: 1, L0657: 1, L0526: 1, L0783: 1, L0383: 1, L0787: 1, H0144: 1,			602475
---------	---------	-----	---------	------	---	---	--	--	--------

								H0660: 1, H0696: 1, S0044: 1, L0740: 1, L0750: 1, L0780: 1, S0436: 1, H0667: 1, H0423: 1 and S0424: 1.			
HDPJG33	1060780	927	555 - 863	3102	Cys-38 to Thr-45, Ser-69 to Asp-79, Leu-81 to Gly-89, Pro-97 to Leu-103.			H0208: 1, H0024: 1, H0038: 1, L0776: 1, H0658: 1, H0521: 1 and H0665: 1.			
HLVAE20	1060967	928	801 - 1259	3103	Pro-10 to Arg-15, Gly-45 to Trp-57, Gly-77 to Pro-88.						
HKZAR86	1060972	929	1 - 1302	3104	Gln-1 to Arg-14, Leu-21 to Arg-32, Cys-44 to Cys-57.			L0771: 9, H0436: 6, H0494: 4, L0761: 4, L0789: 4, L0743: 4, H0656: 3, H0581: 3, L0764: 3, H0543: 3, H0580: 2, H0427: 2, H0538: 2, L0769: 2, L0806: 2, H0699: 2, H0689: 2, H0521: 2, L0755: 2, H0583: 1, H0341: 1, H0483: 1, H0662: 1, H0550: 1, S0222: 1, H0392: 1, H0486: 1, S0250: 1, H0488: 1, S0426: 1, L0800: 1, L0662: 1, L0768: 1, L0794: 1, L0766: 1, L0803: 1,			

942

943

								L0755: 1, L0731: 1, S0031: 1, H0445: 1, L0587: 1, L0592: 1, L0485: 1, L0595: 1, L0601: 1, H0668: 1, S0192: 1 and S0194: 1, H0415: 2			
HOFNH33	1061185	932	131 - 925	3107	Asp-78 to Gly-84, Gln-112 to Cys-117, Gln-202 to Val-207, Ser-219 to Ser-234, Pro-237 to Lys-252.						
HAJAJQ63	1061238	933	966 - 2816	3108	Met-29 to Glu-38, Ser-40 to Ala-48.			H0436: 65, H0521: 11, S0422: 9, L0439: 9, S0360: 8, L0754: 8, L0471: 7, H0581: 6, L0521: 6, H0520: 5, H0519: 5, H0171: 4, S0358: 4, H0580: 4, S0003: 4, H0529: 4, L0520: 4, L0666: 4, L0663: 4, L0664: 4, H0144: 4, H0547: 4, H0539: 4, L0581: 4, L0362: 4, H0624: 3, H0657: 3, S0444: 3, L0717: 3, S0474: 3, S0049: 3, H0052: 3, H0428: 3, H0553: 3, H0090: 3, H0616: 3, H0413: 3, L0774: 3,			

	L0659: 3, H0658: 3, S0380: 3, H0518: 3, L0748: 3, L0779: 3, L0777: 3, L0752: 3, H0445: 3, H0543: 3, H0341: 2, S0001: 2, H0669: 2, S0418: 2, S0420: 2, H0393: 2, S0222: 2, H0586: 2, H0427: 2, H0318: 2, H0046: 2, H0457: 2, H0373: 2, S0051: 2, H0615: 2, L0455: 2, H0040: 2, H0560: 2, S0208: 2, L0598: 2, L0369: 2, L0776: 2, L0655: 2, L0517: 2, L0665: 2, S0374: 2, H0660: 2, H0672: 2, S0378: 2, L0602: 2, S0152: 2, H0555: 2, L0756: 2, L0758: 2, L0599: 2, L0608: 2, L0594: 2, S0026: 2, S0192: 2, H0542: 2, H0423: 2, S0424: 2, H0170: 1, H0686: 1, S0040: 1, H0717: 1, H0716: 1, H0583: 1, H0656: 1, H0671: 1,	
--	--	--

	H0663: 1, H0638: 1, L0005: 1, S0442: 1, S0354: 1, H0735: 1, S0045: 1, H0619: 1, S6026: 1, S0300: 1, H0175: 1, H0369: 1, H0431: 1, H0612: 1, H0592: 1, H0587: 1, H0331: 1, L0586: 1, H0635: 1, H0156: 1, H0098: 1, H0421: 1, H0309: 1, H0263: 1, T0110: 1, H0597: 1, N0006: 1, H0620: 1, T0010: 1, H0083: 1, H0375: 1, S6028: 1, H0687: 1, S0250: 1, S0214: 1, H0328: 1, H0622: 1, H0124: 1, H0598: 1, H0400: 1, H0163: 1, H0038: 1, H0063: 1, H0551: 1, T0067: 1, H0623: 1, S0038: 1, L0564: 1, L0370: 1, T0042: 1, H0494: 1, H0625: 1, H0561: 1, L0065: 1, S0440: 1, S0150: 1, H0641: 1, L0638: 1, L0667: 1, L0641: 1,				
--	--	--	--	--	--

947

HVVBA82	1061332	935	3 - 500	3110	Arg-17 to Gln-23, Asn-63 to Gln-71.	L0779: 2, L0599: 2, L0604: 2, H0171: 1, H0657: 1, H0671: 1, S0360: 1, S0408: 1, S0045: 1, H0587: 1, H0333: 1, L0622: 1, H0486: 1, H0013: 1, H0599: 1, H0545: 1, H0594: 1, H0266: 1, H0687: 1, H0688: 1, H0213: 1, H0553: 1, H0135: 1, H0090: 1, H0059: 1, H0494: 1, H0646: 1, H0529: 1, L0763: 1, L0639: 1, L0772: 1, L0764: 1, L0375: 1, L0806: 1, L0509: 1, L0783: 1, L0532: 1, S0428: 1, H0144: 1, H0658: 1, H0672: 1, S0330: 1, S0406: 1, S0206: 1, L0756: 1, L0593: 1, L0361: 1 and H0668: 1.	L0748: 10, H0305: 6, H0150: 5, L0777: 5, L0731: 5, L0776: 4, L0809: 4, L0751: 4, S0358: 3, L0157: 3, L0774: 3, L0775: 3.	22q13.1	103050, 103050, 124030, 124030, 138981, 182380
---------	---------	-----	---------	------	--	---	---	---------	---

949

								L0637: 1, L0800: 1, L0641: 1, L0662: 1, L0766: 1, L0804: 1, L0806: 1, L0805: 1, L0657: 1, L0659: 1, L0540: 1, L0518: 1, S0053: 1, S0374: 1, L0438: 1, H0547: 1, S0126: 1, H0435: 1, S0380: 1, H0518: 1, H0696: 1, S014: 1, L0742: 1, L0757: 1, H0445: 1, L0361: 1, S0192: 1, H0543: 1 and H0008: 1.		
HWLLG38	1061388	936	99 - 692	3111	Gly-7 to Arg-14, Phe-77 to Gly-83, Ser-98 to Leu-106, Asp-114 to Tyr-120, Met-143 to Lys-156, Met-161 to Gly-167, Ala-178 to Ser-183.			H0622: 2, L0763: 2, L0776: 2, L0759: 2, S0358: 1, H0370: 1, H0486: 1, H0013: 1, H0428: 1, H0035: 1, H0591: 1, L0783: 1, H0144: 1, S0330: 1, L0439: 1 and L0756: 1.		
HTPCH84	1061466	937	1 - 978	3112	Pro-2 to Trp-11, Arg-73 to Glu-79, Pro-95 to Thr-103, Pro-106 to Phe-115, Asn-117 to Tyr-124, Thr-142 to Cys-149, Thr-177 to Pro-189,			AR052: 108, AR053: 84, AR096: 60, AR039: 52, AR061: 15, AR055: 14, AR089: 11, AR060: 8, AR033: 7, AR104: 6 H0494: 4, H0593: 3,		

951

HLGDA34	1061543	939	2 - 193	3114	Pro-27 to His-34.	S0428: 2, H0610: 1, H0179: 1, H0271: 1 and S0052: 1.		
HAICB08	1061629	940	3 - 338	3115	Gln-7 to Gly-12, Ala-71 to Leu-79, Ser-98 to Asp-103.	S0132: 1		
HVVAW60	1061694	941	208 - 741	3116	Pro-18 to Asn-25, Ala-44 to Asn-50, Arg-56 to Lys-64, Gly-76 to Gly-85, Lys-92 to Leu-98, Gly-116 to Gly-121, Gln-132 to His-138, Thr-159 to Asp-167.	L0794: 5, L0803: 3, L0518: 3, L0748: 3, H0556: 2, S0360: 2, S0422: 2, L0783: 2, L0809: 2, L0438: 2, L0740: 2, L0754: 2, L0747: 2, L0779: 2, L0777: 2, L0757: 2, L0588: 2, L0594: 2, H0171: 1, T0002: 1, H0657: 1, H0638: 1, S0132: 1, H0369: 1, H0441: 1, H0431: 1, H0497: 1, S0280: 1, S0010: 1, H0318: 1, H0263: 1, H0544: 1, T0003: 1, H0373: 1, H0201: 1, H0032: 1, H0673: 1, H0068: 1, H0038: 1, H0551: 1, S0426: 1, L0640: 1, L0763: 1, L0638: 1, L0662: 1, L0768: 1, L0804: 1, L0774: 1,		

HPDVB50	1061708	942	3 - 206	3117	Cys-4 to Asp-16, Lys-36 to Tyr-41, Pro-48 to Asp-68.	L0806: 1, L0805: 1, L0787: 1, H0660: 1, H0672: 1, S0328: 1, S3014: 1, L0749: 1, L0759: 1, H0445: 1, L0581: 1 and H0216: 1. L0748: 26, L0754: 20, L0747: 9, L0756: 8, L0777: 8, L0752: 8, L0744: 6, L0740: 6, L0757: 6, H0046: 5, H0553: 5, L0766: 5, L0803: 5, L0775: 5, L0755: 5, L0759: 5, S0418: 4, S0010: 4, L0662: 4, L0794: 4, L0774: 4, L0806: 4, L0438: 4, L0731: 4, L0758: 4, S0212: 3, S0358: 3, H0632: 3, H0635: 3, H0156: 3, H0052: 3, S0003: 3, S0152: 3, H0436: 3, S0037: 3, S0028: 3, L0750: 3, L0615: 2, H0556: 2, S0420: 2, H0619: 2, H0559: 2, H0013: 2, H0575: 2, H0421: 2, H0251: 2, H0545: 2, H0687: 2.	4q26	147680, 189800, 600919, 601542
---------	---------	-----	---------	------	--	---	------	---

		H0628: 2, H0538: 2, L0763: 2, L0770: 2, L0764: 2, L0626: 2, L0804: 2, L0375: 2, L0809: 2, S0126: 2, H0658: 2, H0660: 2, H0521: 2, S0390: 2, S0027: 2, L0745: 2, L0588: 2, L0591: 2, L0603: 2, S0192: 2, S0196: 2, H0170: 1, S0040: 1, S0114: 1, S0134: 1, L0002: 1, H0657: 1, H0341: 1, H0663: 1, H0638: 1, S0354: 1, S0360: 1, S0045: 1, S0046: 1, S0132: 1, H0351: 1, H0550: 1, S0222: 1, H0592: 1, H0497: 1, H0333: 1, H0642: 1, H0486: 1, H0244: 1, H0036: 1, H0004: 1, T0048: 1, H0581: 1, S0049: 1, H0263: 1, H0546: 1, L0471: 1, H0620: 1, H0197: 1, H0199: 1, H0246: 1, H0373: 1, H0083: 1, H0356: 1, S0025: 1,					
--	--	--	--	--	--	--	--

955

HAZAY40	1061765	943	3 - 1631	3118	<p>Ser-24 to Lys-55, Glu-67 to Ala-72, Leu-74 to Pro-88, Lys-104 to Tyr-119, Ile-121 to Pro-132, Ser-138 to Glu-148, Asp-158 to Pro-167, Glu-177 to Asp-203, Ser-208 to Gln-218, Pro-221 to Pro-227, Gln-229 to Pro-236, Ser-246 to Asn-254, Pro-268 to Thr-279, Arg-281 to Thr-288, Pro-295 to Asp-301, Val-305 to Val-315, Ala-318 to Asn-344, Glu-351 to Pro-366, Ala-415 to Gly-424, Val-470 to Ser-475, Leu-480 to Gly-485, Pro-511 to Cys-522.</p>	<p>H0543: 1, H0423: 1, S0424: 1, S0452: 1, S0460: 1 and S0384: 1, L0439: 10, H0013: 7, L0438: 4, L0758: 4, L0599: 3, H0171: 2, H0632: 2, S0388: 2, T0010: 2, S0250: 2, H0553: 2, H0644: 2, L0662: 2, L0754: 2, L0747: 2, L0749: 2, L0779: 2, L0777: 2, L0591: 2, S0376: 1, S0045: 1, S0222: 1, H0461: 1, L0623: 1, H0244: 1, H0427: 1, S0280: 1, H0575: 1, H0036: 1, S0346: 1, H0327: 1, H0024: 1, H0051: 1, S0051: 1, H0039: 1, T0006: 1, H0383: 1, H0316: 1, S0036: 1, H0038: 1, H0268: 1, L0351: 1, H0280: 1, H0494: 1, L0769: 1, L0637: 1, L0646: 1, L0768: 1, L0649: 1, L0650: 1, L0805: 1, L0776: 1, L0659: 1, L0783: 1,</p>		
---------	---------	-----	----------	------	--	--	--	--

957

			S0038: 4, H0100: 4, S0344: 4, S0002: 4, L0764: 4, L0774: 4, S0027: 4, L0745: 4, L0759: 4, L0596: 4, S0196: 4, H0543: 4, H0717: 3, H0638: 3, S0420: 3, S0442: 3, S0358: 3, H0619: 3, S6026: 3, H0586: 3, H0486: 3, H0156: 3, H0599: 3, S0346: 3, L0157: 3, H0428: 3, H0622: 3, T0006: 3, H0031: 3, H0038: 3, H0529: 3, L0771: 3, L0766: 3, L0789: 3, L0438: 3, S0028: 3, L0750: 3, L0753: 3, L0731: 3, L0757: 3, L0366: 3, H0542: 3, L0600: 3, H0624: 2, H0171: 2, S0116: 2, H0483: 2, H0305: 2, L0005: 2, S0376: 2, S0408: 2, S0007: 2, S0046: 2, S0132: 2, S0300: 2, H0351: 2, H0261: 2, H0370: 2, H0438: 2, S0280: 2,			
--	--	--	--	--	--	--

959

960

S0144: 1, H0538: 1, S0210: 1, L0369: 1, L0763: 1, L0371: 1, L0796: 1, L0761: 1, L0667: 1, L0373: 1, L0765: 1, L0649: 1, L5569: 1, L0386: 1, L0803: 1, L0775: 1, L0378: 1, L0806: 1, L0805: 1, L0776: 1, L0655: 1, L0518: 1, L0383: 1, L0382: 1, L0792: 1, L0532: 1, H0725: 1, H0691: 1, T0068: 1, S0126: 1, H0689: 1, H0690: 1, H0435: 1, H0658: 1, H0670: 1, H0660: 1, S0330: 1, S0380: 1, H0710: 1, S0454: 1, H0522: 1, H0704: 1, H0555: 1, H0478: 1, H0627: 1, H0727: 1, S3012: 1, S0206: 1, S0032: 1, L0741: 1, L0746: 1, L0756: 1, L0780: 1, L0755: 1, S0031: 1, S0436: 1, L0589: 1, L0485: 1, L0608: 1, L0594: 1,	
--	--

HUXAL63	1061790	945	2 - 1300	3120	Thr-6 to Leu-24, Gly-87 to Ala-92, Ser-103 to Ser-118, Asp-127 to Asn-135, Gln-141 to Phe-147, Thr-149 to Arg-159, Phe-330 to Ala-338, Pro-390 to Thr-398.	S0011: 1, S0026: 1, S0192: 1, H0423: 1 and H0352: 1, L0794: 6, L0766: 6, L0758: 6, L0665: 4, L0439: 4, L0779: 4, H0590: 3, L0598: 3, L0763: 3, L0666: 3, H0648: 3, L0754: 3, L0362: 3, H0506: 3, H0657: 2, H0661: 2, S0438: 2, L0646: 2, L0803: 2, L0375: 2, L0806: 2, L0809: 2, L0438: 2, L0744: 2, L0740: 2, L0747: 2, L0731: 2, S0434: 2, L0589: 2, H0713: 1, S0114: 1, H0583: 1, H0255: 1, H0669: 1, H0663: 1, S0222: 1, H0497: 1, L0021: 1, L0022: 1, H0036: 1, H0052: 1, L0163: 1, H0239: 1, H0179: 1, H0615: 1, H0553: 1, H0163: 1, H0038: 1, H0100: 1, S0440: 1, S0422: 1, S0426: 1, UNKWN: 1, L5575: 1,		
---------	---------	-----	----------	------	---	---	--	--

HLCLX57	1061886	946	3 - 953	3121	Lys-20 to Glu-27.	L0644: 1, L0764: 1, L0662: 1, L0651: 1, L0653: 1, L0655: 1, L0661: 1, L0657: 1, L0526: 1, L0783: 1, L0793: 1, L0664: 1, S0374: 1, H0682: 1, H0658: 1, S0328: 1, H0539: 1, S0454: 1, S0406: 1, S0028: 1, L0750: 1, L0752: 1, L0759: 1, S0260: 1, H0445: 1, L0596: 1 and L0597: 1.	14q24	107970, 115650, 182600, 602091
---------	---------	-----	---------	------	-------------------	---	-------	---

HMALF63	1061935	947	318 - 1130	3122	Gly-13 to Arg-19, Glu-28 to Glu-64, Glu-81 to Asp-88, Leu-103 to Asn-109, Ile-132 to Gln-144, Glu-148 to Leu-157, Met-188 to Tyr-193, Ser-223 to Thr-230.	H0421: 1, H0309: 1, H0545: 1, H0620: 1, H0024: 1, H0028: 1, S0003: 1, H0628: 1, H0090: 1, H0040: 1, H0269: 1, H0412: 1, H0413: 1, S0210: 1, L0763: 1, L0794: 1, L0804: 1, L0776: 1, L0657: 1, H0690: 1, H0658: 1, H0670: 1, H0660: 1, H0648: 1, S0378: 1, H0696: 1, S0406: 1, S0118: 1, S0037: 1, S0027: 1, S0028: 1, L0744: 1, L0779: 1, L0758: 1 and S0011: 1.	L0439: 48, H0013: 25, H0521: 21, S0152: 17, H0090: 13, S0010: 9, S0126: 9, H0543: 9, H0553: 8, H0591: 8, H0144: 8, S0192: 8, H0556: 7, H0038: 7, H0551: 7, H0494: 7, S0240: 7, L0740: 7, L0758: 7, S0256: 6, S0132: 6, S0474: 6, L0666: 6, L0596: 6.	2p25.2- p25.1	
---------	---------	-----	------------	------	--	---	---	------------------	--

L0595: 6, H0667: 6,
S0414: 5, H0575: 5,
H0581: 5, L0483: 5,
H0641: 5, L0764: 5,
L0438: 5, H0519: 5,
L0751: 5, L0747: 5,
L0731: 5, L0757: 5,
H0661: 4, H0662: 4,
S0354: 4, S0376: 4,
S0046: 4, S0222: 4,
H0052: 4, H0266: 4,
S0214: 4, H0031: 4,
H0040: 4, L0662: 4,
H0520: 4, H0539: 4,
H0522: 4, S0206: 4,
L0748: 4, L0754: 4,
H0542: 4, S0134: 3,
H0657: 3, S0358: 3,
H0580: 3, H0586: 3,
H0009: 3, H0050: 3,
L0471: 3, H0201: 3,
H0039: 3, H0644: 3,
H0032: 3, H0598: 3,
H0616: 3, S0142: 3,
S0344: 3, L0773: 3,
L0794: 3, L0649: 3,
L0659: 3, L0663: 3,
H0435: 3, H0658: 3,
H0660: 3, S0330: 3,
S0270: 3, L0752: 3,

967

HACMR36	1062057	948	1 - 1515	3123	Gly-20 to Gly-25, Leu-47 to Pro-56, Gly-63 to Glu-68, Glu-87 to Ala-99.	L0761: 1, L0667: 1, L0772: 1, L0372: 1, L0646: 1, L0521: 1, L0768: 1, L0774: 1, L0375: 1, L0651: 1, L0805: 1, L0776: 1, L0655: 1, L0657: 1, L0526: 1, L0664: 1, S0428: 1, S0374: 1, L0352: 1, H0689: 1, H0690: 1, H0682: 1, H0683: 1, H0414: 1, H0659: 1, H0670: 1, H0672: 1, H0651: 1, S0328: 1, S0378: 1, S0380: 1, H0134: 1, H0555: 1, H0436: 1, H0478: 1, H0627: 1, S0037: 1, S3014: 1, S0027: 1, S0028: 1, L0759: 1, L0684: 1, H0668: 1, H0665: 1, H0136: 1 and H0677: 1.		
						L0717: 3, H0618: 2, H0617: 2, L5566: 2, L0649: 2, L0666: 2, H0685: 1, H0716: 1, H0306: 1, S0360: 1, S0045: 1, S0222: 1, H0370: 1, H0392: 1,		

HAOSM08	1062079	949	80 - 2338	3124				H0427: 1, H0622: 1, L0640: 1, L0763: 1, L0637: 1, L5565: 1, L0373: 1, L0641: 1, L0648: 1, L0364: 1, L0766: 1, L0663: 1, L0665: 1, H0690: 1, L0748: 1, L0779: 1, L0599: 1 and L0595: 1. L0794: 13, L0803: 9, 5 H0013: 7, L0438: 6, L0758: 6, T0010: 5, L0439: 5, L0591: 5, H0413: 4, H0144: 4, L0742: 4, L0751: 4, L0731: 4, S0007: 3, H0038: 3, H0494: 3, L0755: 3, L0601: 3, H0170: 2, H0686: 2, S0418: 2, S0408: 2, S0046: 2, H0619: 2, H0050: 2, S6028: 2, H0268: 2, L0598: 2, L0770: 2, L0800: 2, L0764: 2, L0659: 2, L0666: 2, L0663: 2, L0665: 2, H0547: 2, H0658: 2, S0152: 2, L0741: 2, L0754: 2, L0747: 2, L0750: 2		
---------	---------	-----	-----------	------	--	--	--	---	--	--

	L0779: 2, L0752: 2, L0759: 2, L0588: 2, L0592: 2, L0411: 1, H0624: 1, S0001: 1, S0420: 1, H0329: 1, S0045: 1, S0132: 1, S6026: 1, H0437: 1, H0592: 1, L0021: 1, H0575: 1, S0010: 1, H0318: 1, H0251: 1, T0115: 1, H0046: 1, H0569: 1, H0014: 1, H0373: 1, H0266: 1, S0250: 1, H0328: 1, H0622: 1, H0032: 1, H0616: 1, H0412: 1, H0056: 1, H0623: 1, S0386: 1, H0100: 1, L0351: 1, L0564: 1, H0509: 1, L4747: 1, L0644: 1, L0804: 1, L0775: 1, L0375: 1, L0776: 1, L0809: 1, L0790: 1, L0532: 1, H0520: 1, H0670: 1, S0146: 1, H0555: 1, S0028: 1, L0748: 1, L0740: 1, L0777: 1, L0753: 1, L0757: 1, H0445: 1, L0605: 1.
--	--

HTEFM89	1062084	950	380 - 1234	3125	Ala-18 to His-32, Tyr-51 to Phe-56, Asn-100 to Arg-106, His-140 to Gly-153, Ser-167 to Gly-193, Ser-205 to Asp-214, Trp-237 to Thr-244, Asp-268 to Gln-274.	S0242: 1 and S0276: 1, H0038: 4, L0758: 2, S0040: 1, H0125: 1, S0420: 1, H0622: 1, H0634: 1, H0616: 1, H0623: 1, T0042: 1 and H0560: 1.		
HCHAK72	1062123	951	2 - 1183	3126	Pro-18 to Thr-25, Ser-36 to Tyr-45, Met-68 to Tyr-77, Gly-148 to Ser-154, Ser-234 to Gly-242, Asn-267 to Asp- 274, Cys-337 to Gly-342, Met-388 to Thr-394.	AR039: 25, AR089: 23, AR096: 18, AR053: 16, AR060: 15, AR033: 14, AR055: 10, AR104: 9, AR061: 7 L0766: 3, S0356: 2, S0222: 2, H0266: 2, H0616: 2, S0422: 2, L0794: 2, L0655: 2, L0664: 2, H0672: 2, L0777: 2, L0731: 2, H0422: 2, H0171: 1, H0657: 1, S0116: 1, H0341: 1, H0483: 1, H0449: 1, S0376: 1, S0045: 1, H0587: 1, H0497: 1, H0421: 1, H0327: 1, H0057: 1, H0014: 1, H0375: 1, S6028: 1, S0003: 1, S0214: 1, H0328: 1,		

972

					Leu-516 to Gln-522, Glu-528 to Asn-537.	S0036: 1, H0163: 1, H0591: 1, H0494: 1, H0641: 1, L0762: 1, L0646: 1, L0662: 1, L0794: 1, L0804: 1, L0783: 1, L0809: 1, L0666: 1, H0144: 1, S0374: 1, H0547: 1, H0689: 1, H0682: 1, S0328: 1, H0518: 1, S0152: 1, S3014: 1, S0032: 1, L0744: 1, L0747: 1, L0750: 1, L0777: 1, H0595: 1, L0599: 1, H0667: 1 and H0423: 1.		
HPCQK37	1062260	953	3 - 830	3128	Ser-93 to Pro-99, Asn-214 to Gly-220, Thr-255 to Ala-268.	S0136: 47, L0769: 10, L0439: 7, L0750: 7, H0620: 5, L0776: 5, H0519: 5, L0740: 5, L0752: 5, H0341: 4, H0545: 4, S0440: 4, L0805: 4, L0509: 4, L0809: 4, L0666: 4, L0748: 4, S0436: 4, H0624: 3, H0265: 3, H0556: 3, S0418: 3, H0393: 3, L0717: 3, H0266: 3, S0422: 3, L0764: 3, L0659: 3,		

974

					I10675: 1, S0410: 1, H0730: 1, S0046: 1, S0132: 1, H0592: 1, I10586: 1, H0333: 1, H0642: 1, H0331: 1, I10632: 1, H0486: 1, I10013: 1, H0427: 1, L0021: 1, H0575: 1, I10590: 1, S0182: 1, H0085: 1, H0596: 1, T0110: 1, H0546: 1, L0157: 1, H0572: 1, H0571: 1, H0024: 1, L0695: 1, H0373: 1, L0163: 1, S6028: 1, S0003: 1, H0252: 1, H0328: 1, H0622: 1, T0006: 1, H0031: 1, H0553: 1, H0628: 1, H0166: 1, S0364: 1, L0455: 1, H0124: 1, H0598: 1, H0400: 1, H0163: 1, H0090: 1, H0616: 1, H0551: 1, T0067: 1, H0433: 1, I10100: 1, T0041: 1, H0625: 1, H0561: 1, S0448: 1, S0450: 1, S0438: 1, H0509: 1, H0132: 1, H0647: 1,
--	--	--	--	--	--

976

								H0575: 1, H0046: 1, H0292: 1, H0328: 1, H0622: 1, H0135: 1, L0766: 1, S0374: 1, H0648: 1, H0539: 1, H0521: 1, L0750: 1, L0591: 1, H0542: 1 and S0460: 1.			
HBCBE63	1062328	955	32 - 790	3130	Ser-4 to Gln-21, His-33 to Pro-38, Arg-80 to Ser-87, Lys-133 to Tyr-139, Gln-162 to Phe-168, Ala-173 to Lys-179, Gln-198 to Gln-204, Ala-212 to Asn-218, Ser-238 to Arg-245.			S0358: 1, H0370: 1, H0270: 1, H0122: 1, H0253: 1, H0545: 1, H0046: 1, H0015: 1, L0669: 1, H0617: 1, H0032: 1, H0038: 1, H0616: 1, H0658: 1, S0436: 1 and L0596: 1.			
HSSIO19	1062346	956	409 - 248	3131	Arg-1 to Pro-12, Leu-29 to Gln-41.			L0439: 5, L0764: 2, H0660: 2, L0749: 2, S0031: 2, L0591: 2, H0486: 1, L0471: 1, H0424: 1, H0135: 1, L0763: 1, L0769: 1, L0639: 1, L0771: 1, L0375: 1, L0784: 1, L0776: 1, H0478: 1 and L0747: 1.			
HE8NQ23	1062369	957	574 - 1419	3132				AR060: 2, AR061: 2, AR055: 1, AR096: 1, AR033: 1, AR039: 1,			

						AR089: 0, AR104: 0, AR053: 0 L0665: 12, L0666: 5, L0794: 4, L0664: 4, L0759: 4, H0574: 3, L0657: 3, H0031: 2, H0553: 2, H0624: 1, H0632: 1, H0013: 1, H0328: 1, L0598: 1, L0369: 1, L0645: 1, L0662: 1, H0144: 1, H0660: 1 and S0406: 1.		
HTELJ95	1062431	958	95 - 949	3133	Ala-24 to Gln-29, Glu-91 to Arg-110, Arg-115 to Trp-124, Ser-126 to Asp-140, Tyr-156 to Phe-161, Lys-209 to Asp-215, Gly-224 to Thr-230, Pro-254 to Phe-261, Thr-266 to Asp-285.	L0766: 5, L0748: 5, L0362: 4, L0755: 3, H0170: 2, H0265: 2, H0328: 2, H0494: 2, L0776: 2, L0747: 2, L0750: 2, L0731: 2, L0758: 2, H0650: 1, H0657: 1, S0001: 1, H0638: 1, S0418: 1, H0329: 1, S0007: 1, L0717: 1, T0039: 1, L0021: 1, H0097: 1, H0544: 1, L0163: 1, S0388: 1, S0051: 1, H0266: 1, S0003: 1, S0214: 1, H0615: 1, H0616: 1, H0269: 1, H0623: 1, T0041: 1.		

979

HKGBU67	1062496	960	779 - 201	3135	Gly-1 to His-6, Thr-55 to Gln-61, Cys-63 to Asp-70, Gly-132 to Gly-137, Lys-146 to Gly-152, Pro-174 to Lys-182.	H0039: 1, T0006: 1, H0032: 1, H0090: 1, H0268: 1, H0413: 1, H0509: 1, L0375: 1, L0789: 1, L0666: 1, S0126: 1, H0670: 1, H0539: 1, H0521: 1, S0032: 1, L0754: 1, L0779: 1, L0759: 1, H0444: 1 and S0434: 1, L0777: 6, S0358: 3, L0372: 3, L0750: 3, L0755: 3, S0422: 2, L0766: 2, L0663: 2, S0152: 2, L0779: 2, L0588: 2, L0605: 2, H0685: 1, H0341: 1, H0255: 1, S0376: 1, S0410: 1, H0592: 1, H0497: 1, H0009: 1, L0471: 1, H0373: 1, S0214: 1, H0615: 1, H0090: 1, H0494: 1, H0509: 1, H0538: 1, L0769: 1, L0761: 1, L0646: 1, L0764: 1, L0771: 1, L0773: 1, L0794: 1, L0774: 1, L0775: 1, L0655: 1, L0789: 1, L0665: 1,			11
---------	---------	-----	-----------	------	--	---	--	--	----

							H0697: 1, H0520: 1, H0435: 1, S0044: 1, H0555: 1, L0747: 1, L0749: 1, L0753: 1, L0759: 1, H0445: 1, L0581: 1, H0423: 1 and H0712: 1.		
HFKIT82	1062544	961	2 - 1663	3136	Pro-10 to Val-15, Ala-42 to Lys-48, Asn-99 to Gln-104, Ile-114 to Gln-119, Asp-130 to Gly-137, Leu-167 to Tyr-175, Pro-187 to Glu-192, Arg-219 to Pro-224, Ala-233 to Thr-240.	AR039: 4, AR089: 3, AR055: 3, AR096: 3, AR060: 2, AR053: 2, AR104: 2, AR061: 1, AR033: 1 L0439: 6, H0620: 4, L0758: 2, S0040: 1, H0661: 1, H0619: 1, H0549: 1, H0587: 1, H0013: 1, L0021: 1, H0230: 1, H0373: 1, H0135: 1, L0770: 1, L0769: 1, L0776: 1, L0659: 1, L0783: 1, H0144: 1, H0519: 1, H0593: 1, H0682: 1, H0659: 1, L0751: 1, L0753: 1 and L0759: 1.			
HE2LW42	1062574	962	1300 - 1079	3137		H0624: 5, L0748: 4, S0222: 3, H0441: 2, H0013: 2, H0144: 2, L0745: 2, H0170: 1, H0171: 1, S0007: 1,			

HOGCE44	1062586	963	141 - 2561	3138	Glu-46 to Ser-59, Asn-85 to Ser-98.	H0156: 1, L0471: 1, H0051: 1, H0604: 1, H0135: 1, S0386: 1, L0521: 1, L0776: 1 and L0754: 1. L0743: 7, L0731: 7, H0024: 5, H0264: 5, H0547: 5, L0439: 5, L0756: 5, L0764: 4, L0777: 4, L0752: 4, H0622: 3, H0163: 3, S0386: 3, H0529: 3, L0769: 3, L0809: 3, H0144: 3, H0435: 3, L0748: 3, L0747: 3, S0412: 3, S0040: 2, S0116: 2, H0341: 2, S0358: 2, S0444: 2, S0360: 2, H0549: 2, H0013: 2, H0036: 2, S0010: 2, H0318: 2, S0474: 2, H0050: 2, H0083: 2, H0266: 2, H0615: 2, T0006: 2, H0031: 2, H0644: 2, H0135: 2, S0002: 2, L0770: 2, L0771: 2, L0649: 2, L0803: 2, L0776: 2, L0438: 2, H0520: 2, H0539: 2,	20p13	192340, 234200
---------	---------	-----	------------	------	--	---	-------	-------------------

H0518: 2, S0404: 2, S3014: 2, S0028: 2, L0741: 2, L0751: 2, L0750: 2, S0434: 2, L0605: 2, L0591: 2, L0362: 2, H0624: 1, H0171: 1, H0265: 1, S6024: 1, S0134: 1, H0583: 1, L0414: 1, S0282: 1, H0402: 1, S0356: 1, S0442: 1, S0376: 1, S0132: 1, H0619: 1, L0717: 1, H0437: 1, H0550: 1, H0600: 1, H0587: 1, H0486: 1, T0114: 1, H0635: 1, S0280: 1, H0042: 1, H0575: 1, H0590: 1, T0048: 1, H0581: 1, H0052: 1, H0596: 1, H0009: 1, L0471: 1, T0010: 1, S6028: 1, H0188: 1, H0428: 1, L0483: 1, H0553: 1, H0032: 1, H0674: 1, H0124: 1, S0036: 1, H0090: 1, H0591: 1, H0038: 1, H0616: 1, H0551: 1, H0268: 1, H0623: 1,					
--	--	--	--	--	--

HOVJJ72	1062626	964	547 - 1782	3139	His-30 to His-35.	H0100: 1, H0560: 1, S0142: 1, H0538: 1, S0422: 1, S0426: 1, L0762: 1, L0763: 1, L0638: 1, L0761: 1, L0772: 1, L0768: 1, L0794: 1, L0766: 1, L0775: 1, L0375: 1, L0655: 1, L0783: 1, L0519: 1, L0789: 1, L0791: 1, L0666: 1, L0664: 1, S0374: 1, S0126: 1, H0689: 1, H0659: 1, H0521: 1, S0176: 1, S0406: 1, H0436: 1, L0759: 1, S0031: 1, S0260: 1, S0436: 1, L0608: 1, S0011: 1, S0242: 1, S0194: 1, S0276: 1, H0542: 1 and S0460: 1.	L0777: 5, L0750: 4, L0758: 4, H0549: 2, H0550: 2, H0333: 2, H0687: 2, H0688: 2, L0809: 2, L0743: 2, H0265: 1, H0556: 1, S0358: 1, H0645: 1, H0599: 1, H0575: 1, H0618: 1, H0123: 1,	I9q13.1- q13.2	I07741, I13900, I22720, I22720, I26340, I26391, I60900, I64731, I72400.
---------	---------	-----	------------	------	-------------------	--	---	-------------------	---

								H0428: 1, H0163: 1, H0646: 1, L0770: 1, L0769: 1, L0637: 1, L0772: 1, L0774: 1, L0378: 1, L0806: 1, L0663: 1, S0330: 1, H0539: 1, S0190: 1, H0540: 1, L0744: 1, L0748: 1, L0747: 1, L0779: 1, L0780: 1, L0731: 1, S0276: 1 and S0424: 1.		172400, 173850, 180901, 180901, 207750, 221770, 248600, 258501, 600918, 602716
HODBT14	1062628	965	3 - 326	3140	Gln-1 to Glu-8, Ser-17 to Asn-23, Glu-48 to Leu-54, Asn-78 to Ser-83.			H0328: 2 and H0581: 1.		
HBOEB83	1062629	966	1 - 1392	3141	Ala-1 to Ser-6, Thr-16 to Gln-23, Pro-28 to Asn-34, Glu-43 to Cys-49, Asp-95 to Gly-100.		5q13	H0328: 9, L0659: 7, L0662: 6, H0135: 4, L0750: 4, S0360: 3, H0329: 3, H0373: 3, L0375: 3, L0744: 3, H0392: 2, H0046: 2, S0364: 2, H0163: 2, H0100: 2, L0743: 2, S0356: 1, S0222: 1, H0486: 1, H0618: 1, H0439: 1, L0471: 1, S0362: 1, H0038: 1, L0520: 1, L0769: 1, L0637: 1, L0650: 1.	126060, 143200, 143200, 181510, 253200, 268800, 268800, 600354, 600354, 600354	

HODCT96	1062631	967	2 - 541	3142	Lys-1 to Glu-7, Thr-20 to Glu-35, Ser-54 to Glu-62.	AR039: 26, AR033: 17, AR104: 17, AR052: 15, AR053: 15, AR096: 14, AR060: 14, AR089: 13, AR055: 12, AR061: 7 H0617: 8, L0747: 8, L0769: 6, L0665: 5, L0758: 5, L0717: 4, L0794: 4, L0766: 4, L0659: 4, L0748: 4, H0181: 3, H0494: 3, L0638: 3, L0666: 3, H0658: 3, L0750: 3, L0757: 3, H0657: 2, H0255: 2, H0431: 2, H0318: 2, H0328: 2, T0006: 2, H0396: 2, S0426: 2, L0770: 2, L0771: 2, L0375: 2, L0805: 2, L0657: 2, L0384: 2, H0659: 2, L0744: 2, L0756: 2, L0779: 2, L0759: 2,	L0789: 1, L0664: 1, H0144: 1, H0690: 1, H0660: 1, S0028: 1, L0740: 1, L0759: 1, L0589: 1, S0242: 1 and H0352: 1.		
---------	---------	-----	---------	------	---	--	---	--	--

987

								S0330: 1, S0406: 1, H0576: 1, L0742: 1, L0439: 1, L0740: 1, L0751: 1, L0754: 1, L0749: 1, L0752: 1, L0755: 1, L0731: 1, S0031: 1, H0445: 1, L0587: 1, L0592: 1, L0485: 1, L0595: 1, L0601: 1, H0668: 1, S0192: 1 and S0194: 1.			
HTXJE60	1062655	968	60 - 1124	3143	Asp-32 to Leu-43, Leu-47 to Arg-53, Glu-95 to Phe-102, Leu-123 to Val-130, Leu-146 to Gly-154, Asp-186 to Glu-192, Glu-246 to Ser-255, Asp-296 to Arg-302, Ser-334 to Ala-347.			S0360: 2, H0266: 2, S0330: 2, L0748: 2, H0556: 1, S0442: 1, S0358: 1, S0046: 1, L0471: 1, H0024: 1, H0634: 1, H0494: 1, H0560: 1, L0800: 1, L0803: 1, H0593: 1, H0435: 1, H0651: 1, H0521: 1, H0522: 1, S0406: 1, L0747: 1 and S0452: 1.			
HUSIQ62	1062679	969	83 - 814	3144	Thr-1 to Glu-10, Arg-20 to Leu-26, Gly-37 to Ser-49, Cys-58 to Ser-69, Lys-79 to Lys-85, Ser-88 to Glu-96, Ala-99 to Ser-135,			S0422: 8, H0710: 8, S0116: 7, L0471: 7, H0542: 7, H0580: 6, T0042: 6, H0547: 6, H0659: 6, L0748: 6, H0486: 5, H0543: 5, H0656: 4, H0341: 4,	4q31	107250, 181600, 189800, 266300	

Ser-142 to Glu-151, Ser-169 to Lys-192, Ala-199 to Glu-244.	S0360: 4, S0440: 4, S0406: 4, L0747: 4, S0444: 3, H0318: 3, H0581: 3, H0428: 3, H0551: 3, L0667: 3, L0662: 3, L0766: 3, L0655: 3, L0666: 3, L0749: 3, L0758: 3, L0362: 3, H0668: 3, T0002: 2, H0650: 2, H0662: 2, H0393: 2, H0497: 2, H0013: 2, H0266: 2, H0412: 2, S0150: 2, H0529: 2, L0646: 2, L0375: 2, L0606: 2, H0144: 2, H0698: 2, H0521: 2, L0740: 2, L0750: 2, L0588: 2, L0605: 2, L0608: 2, S0192: 2, H0170: 1, L0615: 1, H0686: 1, H0685: 1, S0040: 1, H0663: 1, H0402: 1, H0449: 1, H0459: 1, S0418: 1, S0420: 1, S0358: 1, S0376: 1, H0369: 1, H0069: 1, L0021: 1, T0082: 1, H0421: 1, H0744: 1, H0251: 1,					
---	--	--	--	--	--	--

	H0457: 1, H0620: 1, H0350: 1, H0629: 1, H0375: 1, H0267: 1, H0252: 1, H0553: 1, S0366: 1, H0163: 1, H0090: 1, H0040: 1, H0264: 1, H0413: 1, L0475: 1, H0560: 1, H0561: 1, H0641: 1, H0538: 1, L0769: 1, L5575: 1, L0761: 1, L0373: 1, L0372: 1, L0800: 1, L0768: 1, L0364: 1, L0774: 1, L0806: 1, L0652: 1, L0657: 1, L0656: 1, L3872: 1, L5623: 1, L0789: 1, L0790: 1, L0792: 1, L0663: 1, L0664: 1, L0665: 1, H0702: 1, H0699: 1, S0374: 1, H0723: 1, H0726: 1, H0520: 1, H0519: 1, S0126: 1, H0682: 1, H0683: 1, H0684: 1, H0660: 1, H0666: 1, S0328: 1, S0380: 1, H0696: 1, L0744: 1, L0779: 1, L0755: 1, H0445: 1,					
--	--	--	--	--	--	--

HPCTC48	1062686	970	206 - 361	3145	Arg-1 to Gly-14, Glu-24 to Ile-34, Glu-40 to Phe-52.	S0434: 1, L0591: 1 and S0026: 1. H0659: 1 and L0758: 1.		
HKBAK29	1062718	971	945 - 1562	3146	Glu-16 to Ser-23, Tyr-32 to Ala-44, Leu-56 to Ala-70, Ser-85 to Thr-91, Glu-102 to Lys-108, Glu-116 to Leu-122, Leu-136 to Leu-150, Glu-165 to Leu-170, Val-183 to Asp-191.	AR096: 7, AR104: 7, AR089: 5, AR033: 4, AR060: 4, AR053: 2, AR061: 1, AR055: 0, AR039: 0 S0358: 6, L0659: 6, L0805: 3, L0655: 3, L0665: 3, H0670: 3, L0755: 3, S0026: 3, S0360: 2, S0003: 2, L0649: 2, L0774: 2, L0776: 2, L0666: 2, L0663: 2, L0777: 2, L0758: 2, H0624: 1, H0170: 1, T0002: 1, H0656: 1, H0638: 1, H0637: 1, L0717: 1, S0278: 1, S0222: 1, H0497: 1, H0642: 1, H0574: 1, H0632: 1, H0486: 1, H0156: 1, L0021: 1, H0036: 1, H0251: 1, H0046: 1, L0157: 1, L0471: 1, H0083: 1, S0214: 1,		

							H0039: 1, H0644: 1, H0165: 1, H0674: 1, H0090: 1, H0040: 1, H0412: 1, H0413: 1, H0625: 1, H0529: 1, L0646: 1, L0768: 1, L0766: 1, L0803: 1, L0775: 1, L0784: 1, L0634: 1, L0783: 1, H0520: 1, S0126: 1, H0689: 1, H0683: 1, H0666: 1, H0648: 1, H0539: 1, H0521: 1, S0044: 1, S3014: 1, L0744: 1, L0756: 1, L0752: 1, L0757: 1, L0592: 1, L0485: 1, H0423: 1, H0422: 1 and H0506: 1.		
HPMCX26	1062743	972	329 - 682	3147	Ser-12 to Trp-23, Tyr-25 to Tyr-32, Pro-34 to Phe-41.		L0599: 2, H0271: 1, H0031: 1 and H0623: 1.		
HFKHF51	1062785	973	3 - 1910	3148			L0747: 4, H0620: 3, S0051: 3, H0424: 3, L0749: 3, L0756: 3, L0755: 3, H0295: 2, S0300: 2, H0333: 2, H0024: 2, H0100: 2, L0794: 2, L0774: 2, H0672: 2, L0744: 2,		

						L0754: 2, L0777: 2, L0731: 2, L0759: 2, S0412: 2, S0420: 1, S0222: 1, S0005: 1, S0049: 1, H0320: 1, S0250: 1, H0213: 1, H0417: 1, H0068: 1, I 0564: 1, H0494: 1, L0771: 1, L0803: 1, L0775: 1, L0382: 1, L0809: 1, L0367: 1, L0787: 1, L0791: 1, L0793: 1, S0126: 1, H0690: 1, S0380: 1, L0612: 1, S3014: 1, L0779: 1, L0757: 1, S0260: 1, L0592: 1 and L0603: 1.		
HUCPE28	1062795	974	71 - 1090	3149	Lys-16 to Gly-23, Gln-33 to Val-43, Ser-55 to Ala-67, Gln-82 to Pro-97, Thr-108 to Gln-124, Pro-151 to Gln-157, Leu-184 to Cys-194, Ala-218 to Pro-225, Pro-227 to Asp-243, Lys-304 to Ser-324.	AR096: 1, AR055: 1, AR089: 1, AR061: 0, AR060: 0, AR033: 0, AR052: 0, AR104: 0 L0766: 11, H0622: 5, H0716: 2, S0420: 2, L0769: 2, L0803: 2, L0779: 2, H0656: 1, H0484: 1, S0418: 1, S0444: 1, H0580: 1, H0730: 1, H0619: 1, H0411: 1, H0592: 1,		

							H0427: 1, H0581: 1, H0052: 1, H0494: 1, L0774: 1, L0775: 1, L4501: 1, L0665: 1, S0374: 1, H0539: 1, S0404: 1, L0743: 1, L0745: 1, L0749: 1, L0777: 1, L0752: 1, S0436: 1 and L0097: 1,		
HPWAH30	1062840	975	1 - 708	3150			Phe-12 to Thr-19, Thr-26 to Cys-36, Thr-45 to Lys-50, Thr-54 to Gly-65, His-81 to Lys-88, Thr-110 to Lys-116, Phe-124 to Thr-131, Thr-138 to Lys-144, Ser-156 to Thr-162, His-165 to Lys-172, Asn-181 to Thr-187, Thr-194 to Lys-200, Thr-222 to Gln-230.		
H6EDQ51	H6EDQ51R	976	91 - 303	3151					
HA5AU29	HA5AU29R	977	2 - 190	3152			Arg-1 to Cys-10.		
HACBX26	HACBX26R	978	2 - 124	3153					
HACMD23	HACMD23R	979	1 - 81	3154					
HACMF32	HACMF32R	980	52 - 342	3155					
HACMH54	HACMH54R	981	2 - 199	3156					
HACMH72	HACMH72R	982	2 - 478	3157				H0713: 5, H0684: 2,	

							H0685: 1, H0689: 1 and H0683: 1.			
HACMM26	HACMM26R	983	1 - 84	3158			H0685: 2, S0422: 1, L0766: 1 and L0526: 1.			
HACMM56	HACMM56R	984	221 - 451	3159						
HACMS55	HACMS55R	985	3 - 116	3160	Ser-9 to Phe-14.					
HACMX77	HACMX77R	986	3 - 419	3161	Glu-113 to Gly-118.		L0747: 25, S0358: 11, L0755: 9, L0740: 7, L0758: 7, L0775: 6, H0659: 6, L0742: 6, H0545: 5, S0406: 5, L0750: 5, L0756: 5, L0757: 5, L0362: 5, S0026: 5, H0580: 4, S0007: 4, H0413: 4, H0494: 4, S0440: 4, L0520: 4, L0769: 4, L0731: 4, H0543: 4, H0295: 3, H0341: 3, S0444: 3, H0581: 3, H0529: 3, L0770: 3, L0766: 3, L0382: 3, H0436: 3, L0744: 3, L0361: 3, H0686: 2, S0134: 2, S0218: 2, H0419: 2, H0484: 2, S0442: 2, S0360: 2, S0045: 2, H0486: 2, H0427: 2, L0021: 2, H0594: 2, T0023: 2,			

	H0063: 2, H0551: 2, H0560: 2, L0761: 2, L0773: 2, L0648: 2, L0521: 2, L0768: 2, L0653: 2, L0654: 2, L0776: 2, L0526: 2, S0374: 2, H0689: 2, H0670: 2, S0028: 2, S0206: 2, L0748: 2, L0439: 2, L0751: 2, L0754: 2, L0749: 2, L0752: 2, L0759: 2, H0445: 2, L0595: 2, H0171: 1, H0265: 1, H0685: 1, H0294: 1, H0657: 1, S0116: 1, S0212: 1, S0001: 1, H0192: 1, S0376: 1, H0676: 1, S0408: 1, H0431: 1, H0370: 1, H0392: 1, H0600: 1, H0586: 1, H0587: 1, H0643: 1, H0331: 1, H0632: 1, T0060: 1, T0082: 1, H0318: 1, S0049: 1, H0251: 1, H0309: 1, H0054: 1, H0327: 1, H0530: 1, H0544: 1, H0123: 1, H0050: 1, L0471: 1					
--	---	--	--	--	--	--

		H0012: 1, H0620: 1, H0014: 1, H0373: 1, H0051: 1, H0510: 1, H0266: 1, S0022: 1, H0428: 1, H0169: 1, H0674: 1, S0036: 1, H0380: 1, H0412: 1, T0042: 1, L0475: 1, S0438: 1, H0509: 1, S0150: 1, H0647: 1, S0344: 1, S0210: 1, H0026: 1, L0506: 1, L0630: 1, L0646: 1, L0764: 1, L0771: 1, L0767: 1, L0522: 1, L0774: 1, L0375: 1, L0655: 1, L0661: 1, L0807: 1, L0657: 1, L0659: 1, L0384: 1, L0383: 1, L0519: 1, L0532: 1, L0666: 1, H0144: 1, T0068: 1, H0547: 1, H0519: 1, S0126: 1, H0682: 1, H0658: 1, S0378: 1, S0380: 1, H0525: 1, H0521: 1, H0522: 1, H0696: 1, H0555: 1, S0392: 1, H0478: 1, H0631: 1, S3012: 1,
--	--	--

							L0779: 1, L0753: 1, S0434: 1, L0588: 1, L0485: 1, H0668: 1, H0653: 1, H0136: 1, S0196: 1, H0542: 1, H0422: 1 and H0008: 1.			
HACMZ45	HACMZ45R	987	3 - 245	3162	Thr-11 to Gly-16, Ser-49 to Ser-55, Ile-64 to Gly-69. Gln-1 to Lys-6.					
HACND54	HACND54R	988	2 - 274	3163			H0617: 9, H0618: 4, H0253: 4, H0545: 4, L0774: 4, L0439: 4, L0750: 4, L0766: 3, L0803: 3, L0806: 3, L0748: 3, L0747: 3, L0777: 3, L0752: 3, L0758: 3, H0685: 2, H0333: 2, H0559: 2, H0100: 2, L0644: 2, L0542: 2, L0565: 2, L0438: 2, L0587: 2, S0040: 1, S0114: 1, H0589: 1, S0418: 1, S0420: 1, S0356: 1, S0376: 1, H0580: 1, H0351: 1, H0411: 1, S0278: 1, H0549: 1, S0222: 1, H0431: 1, H0438: 1, T0109: 1, H0427: 1, S0280: 1.			

999

HACNE40	HACNE40R	990	229 - 426	3165			H0616: 3, L0665: 3, L0794: 2, L0659: 2, L0779: 2, H0423: 2, H0171: 1, H0685: 1, H0675: 1, S0408: 1, H0013: 1, L0105: 1, H0581: 1, T0110: 1, S0214: 1, H0622: 1, H0561: 1, S0002: 1, H0529: 1, L0762: 1, L0667: 1, L0766: 1, L0805: 1, L0655: 1, L0658: 1, L0790: 1, H0702: 1, H0648: 1, H0521: 1, L0748: 1, L0777: 1, L0758: 1 and L0366: 1.		
HACNF21	HACNF21R	991	3 - 542	3166	Asp-30 to Thr-37, Lys-81 to Glu-87.				
HACNF41	HACNF41R	992	2 - 91	3167	Ile-13 to Gly-18.				
HACNI47	HACNI47R	993	39 - 500	3168	Val-23 to Lys-30, Tyr-40 to Asn-50, Lys-63 to Lys-68, Leu-92 to Asn-102.	AR089: 18, AR060: 15, AR104: 14, AR096: 9, AR055: 6, AR061: 4			
HACNI86	HACNI86R	994	239 - 370	3169		L0754: 12, L0740: 8, L0731: 8, S0003: 6, L0649: 6, H0620: 5, S0214: 5, L0766: 5,			

1001

	S0222: 1, H0586: 1, H0574: 1, T0039: 1, H0013: 1, S0280: 1, L0021: 1, H0575: 1, S0346: 1, H0581: 1, H0374: 1, H0309: 1, H0546: 1, H0024: 1, H0373: 1, H0051: 1, H0356: 1, H0266: 1, H0179: 1, S0318: 1, S0316: 1, H0687: 1, H0288: 1, H0031: 1, L0142: 1, H0628: 1, H0032: 1, S0036: 1, H0090: 1, H0591: 1, H0038: 1, H0616: 1, H0063: 1, H0413: 1, H0561: 1, H0366: 1, S0438: 1, S0440: 1, H0641: 1, S0144: 1, H0529: 1, L0762: 1, L0769: 1, L0641: 1, L0773: 1, L0381: 1, L0775: 1, L0375: 1, L0606: 1, L0809: 1, L0529: 1, L0368: 1, L0666: 1, L0664: 1, H0144: 1, H0701: 1, H0520: 1, H0659: 1, H0670: 1, H0651: 1,					
--	--	--	--	--	--	--

							H0539: 1, H0710: 1, S0152: 1, H0522: 1, H0696: 1, S0044: 1, S0406: 1, H0478: 1, L0756: 1, L0753: 1, S0031: 1, H0595: 1, S0434: 1, L0592: 1, S0011: 1, H0653: 1, S0192: 1, S0242: 1, H0542: 1, H0543: 1 and H0422: 1.			
HADDD29	HADDD29R	995	181 - 342	3170	Asn-14 to Thr-26.					
HADET44	HADET44R	996	2 - 304	3171						
HAHGU75	HAHGU75R	997	1 - 501	3172						
HAHHD12	HAHHD12R	998	1 - 94	3173	Leu-3 to Met-9, Gln-24 to Thr-32.					
HALSG11	HALSG11R	999	2 - 364	3174	Ser-25 to Cys-36, Gln-39 to Asp-56.					
HANGA96	HANGA96R	1000	40 - 246	3175	Asn-49 to Asp-54.					
HAOSA43	HAOSA43R	1001	61 - 222	3176						
							L0759: 8, S0010: 7, L0742: 7, L0455: 6, S0007: 5, L0809: 4, L0439: 4, H0013: 3, L0768: 3, L0753: 3, H0686: 2, S0134: 2, S0222: 2, H0052: 2, H0024: 2, L0769: 2, L0638: 2, L0521: 2, L0794: 2, L0438: 2, L0589: 2, L0608: 2,			

							H0543: 2, H0341: 1, H0441: 1, H0586: 1, S0346: 1, S0049: 1, H0569: 1, H0050: 1, T0010: 1, H0598: 1, H0272: 1, L0666: 1, H0144: 1, H0689: 1, L0747: 1, L0366: 1 and H0423: 1.			
HAOSB87	HAOSB87R	1002	1 - 348	3177	Val-77 to Val-86.					
HAOSC40	HAOSC40R	1003	55 - 327	3178	Pro-69 to Leu-76.		L0766: 8, L0803: 7, L0731: 7, L0758: 5, S0358: 4, S0360: 4, L0794: 4, H0547: 4, S0440: 3, L0662: 3, L0659: 3, L0809: 3, L0666: 3, L0663: 3, S0374: 3, L0755: 3, L0596: 3, H0543: 3, H0583: 2, H0004: 2, H0622: 2, L0194: 2, H0038: 2, S0422: 2, L0771: 2, L0551: 2, L0774: 2, L0655: 2, L0526: 2, L0665: 2, H0659: 2, L0747: 2, L0750: 2, L0756: 2, S0436: 2, H0624: 1, H0170: 1, H0159: 1, H0686: 1, H0685: 1,			

									H0650: 1, H0657: 1, S0116: 1, H0341: 1, S0442: 1, S0376: 1, S0444: 1, H0619: 1, L0717: 1, H0411: 1, S0222: 1, H0587: 1, H0497: 1, H0427: 1, H0042: 1, H0596: 1, T0110: 1, H0081: 1, H0050: 1, H0687: 1, S0003: 1, H0252: 1, H0213: 1, H0163: 1, H0591: 1, H0634: 1, H0616: 1, H0063: 1, H0413: 1, H0100: 1, H0529: 1, L0638: 1, L0637: 1, L0800: 1, L0764: 1, L0773: 1, L0521: 1, L0768: 1, L0784: 1, L0783: 1, L0788: 1, L0790: 1, L0664: 1, H0436: 1, S0392: 1, H0627: 1, L0748: 1, L0754: 1, L0749: 1, L0759: 1, H0445: 1, S0434: 1, H0423: 1, S0412: 1 and S0424: 1.					
HAOSE70	HAOSE70R	1004	85 - 273	3179										
HAOSF68	HAOSF68R	1005	1 - 630	3180										

HAOSG95	HAOSG95R	1006	51 - 485	3181	Arg-5 to Arg-17, Asp-25 to Val-31.			
HAOSI79	HAOSI79R	1007	1 - 543	3182	Val-7 to Gln-13, Thr-20 to Arg-26, Lys-34 to Phe-40, Arg-46 to Lys-51.			
HAOSJ27	HAOSJ27R	1008	2 - 166	3183	Lys-27 to Gln-39, Gln-47 to Thr-52.			
HAOSJ33	HAOSJ33R	1009	3 - 353	3184	Leu-3 to Gln-14, Ser-95 to Ala-105.			
HAOSJ73	HAOSJ73R	1010	1 - 114	3185				
HAOSK38	HAOSK38R	1011	1 - 303	3186	Pro-24 to Val-49, Tyr-51 to Leu-56.	H0585: 27, H0556: 17, L0595: 15, L0591: 13, L0593: 13, H0046: 12, H0543: 12, H0521: 11, L0747: 11, L0596: 11, H0265: 10, H0040: 10, H0266: 9, H0038: 9, H0494: 9, L0588: 9, H0656: 8, H0581: 8, H0617: 8, L0664: 8, H0519: 8, L0601: 8, L0163: 7, H0083: 7, H0529: 7, L0665: 7, L0602: 7, H0657: 6, H0599: 6, H0618: 6, H0318: 6, H0551: 6, L0666: 6, H0547: 6, H0542: 6, H0141: 5, H0402: 5, S0358: 5,		

	S0360: 5, S0046: 5, H0013: 5, H0052: 5, H0616: 5, H0087: 5, H0264: 5, T0041: 5, T0042: 5, S0440: 5, L0662: 5, L0774: 5, L0783: 5, L0748: 5, L0751: 5, L0758: 5, H0445: 5, L0599: 5, L0608: 5, H0341: 4, S0420: 4, S0354: 4, H0619: 4, S0222: 4, H0039: 4, H0213: 4, H0560: 4, L0521: 4, L0663: 4, L0565: 4, L0750: 4, L0752: 4, L0362: 4, L0615: 3, H0686: 3, H0650: 3, S0356: 3, S0045: 3, H0438: 3, H0575: 3, H0253: 3, S0010: 3, H0251: 3, H0123: 3, T0023: 3, L0456: 3, H0124: 3, H0561: 3, H0509: 3, H0641: 3, H0646: 3, L0598: 3, L0646: 3, L0768: 3, L0655: 3, H0144: 3, H0689: 3, H0659: 3, H0666: 3, S0152: 3,
--	--

1008

H0685: 1, S0342: 1, S0134: 1, H0583: 1, H0483: 1, H0255: 1, H0661: 1, H0662: 1, H0305: 1, S0418: 1, S0444: 1, H0489: 1, H0637: 1, H0151: 1, S0132: 1, H0411: 1, S0278: 1, H0369: 1, H0549: 1, H0441: 1, H0392: 1, H0298: 1, T0104: 1, H0600: 1, H0592: 1, H0587: 1, H0497: 1, H0331: 1, H0574: 1, L0622: 1, L0623: 1, H0486: 1, T0039: 1, T0040: 1, T0114: 1, H0244: 1, H0069: 1, S0280: 1, H0156: 1, H0004: 1, S0346: 1, T0071: 1, H0421: 1, H0085: 1, H0205: 1, H0204: 1, H0545: 1, L0471: 1, H0012: 1, H0246: 1, H0510: 1, H0375: 1, H0179: 1, H0687: 1, S0314: 1, H0328: 1, H0615: 1, H0688: 1, H0428: 1, H0622: 1,	
--	--

	H0424: 1, H0644: 1, L0142: 1, H0628: 1, H0169: 1, H0674: 1, S0364: 1, L0455: 1, H0316: 1, H0135: 1, T0067: 1, H0488: 1, H0412: 1, H0413: 1, S0038: 1, H0100: 1, L0351: 1, L0564: 1, H0022: 1, S0352: 1, S0150: 1, H0130: 1, H0647: 1, S0144: 1, S0426: 1, L0369: 1, L0763: 1, L0371: 1, L0761: 1, L0667: 1, L0627: 1, L0764: 1, L0773: 1, L0648: 1, L0767: 1, L0650: 1, L0775: 1, L0653: 1, L0382: 1, L0809: 1, L0793: 1, S0216: 1, H0697: 1, S0310: 1, S0126: 1, H0684: 1, H0435: 1, H0658: 1, H0660: 1, H0672: 1, S0378: 1, S0380: 1, H0518: 1, H0134: 1, S0406: 1, H0555: 1, S0037: 1, S0027: 1, L0754: 1, L0745: 1,	
--	--	--

								L0786: 1, L0779: 1, L0757: 1, L0759: 1, H0444: 1, H0707: 1, S0436: 1, L0597: 1, L0594: 1, S0026: 1, L0697: 1, H0677: 1 and L0600: 1.			
HAOSL36	HAOSL36R	1012	3 - 269	3187				S0418: 10, L0749: 9, L0809: 7, S0406: 6, L0766: 5, L0748: 5, L0740: 5, L0752: 5, L0731: 5, S0360: 4, L0509: 4, L0665: 4, L0754: 4, S0424: 4, H0638: 3, S0420: 3, S0410: 3, H0013: 3, H0318: 3, H0545: 3, H0050: 3, H0040: 3, L0664: 3, H0658: 3, H0521: 3, L0750: 3, H0556: 2, H0341: 2, H0580: 2, S0222: 2, H0333: 2, L0471: 2, H0620: 2, H0687: 2, H0553: 2, H0673: 2, H0674: 2, H0068: 2, H0551: 2, H0494: 2, H0560: 2, S0438: 2, S0440: 2, H0509: 2, L0769: 2, L0638: 2,			

1013

			L0731: 7, L0758: 7, H0556: 6, H0024: 6, L0770: 6, L0588: 6, S0360: 5, S0046: 5, S0476: 5, L0774: 5, H0547: 5, L0439: 5, L0740: 5, L0749: 5, L0755: 5, S0420: 4, S0250: 4, H0039: 4, H0135: 4, H0551: 4, L0766: 4, H0144: 4, S0126: 4, L0742: 4, L0743: 4, L0747: 4, L0757: 4, L0591: 4, H0170: 3, H0663: 3, S0444: 3, H0486: 3, H0200: 3, H0188: 3, H0038: 3, H0100: 3, L0769: 3, L0773: 3, L0775: 3, S0031: 3, H0445: 3, H0136: 3, H0542: 3, H0543: 3, H0624: 2, H0717: 2, S0212: 2, H0484: 2, H0255: 2, S0418: 2, S0408: 2, S0410: 2, H0393: 2, H0351: 2, H0411: 2, S0222: 2, H0592: 2, H0574: 2, H0635: 2, H0427: 2.
--	--	--	--

1015

1016

1017

HAOSS30	HAOSS30R	1015	3 - 509	3190	Pro-11 to His-21, Glu-30 to Gln-41, Arg-55 to Ser-64, Arg-89 to Thr-96, Cys-99 to Gln-106, Pro-116 to His-124.	L0439: 16, S0222: 5, H0733: 4, L0770: 4, L0809: 4, L0747: 4, S0356: 3, L0471: 3, S0366: 3, L0766: 3, S0436: 3, H0556: 2, L0622: 2, H0373: 2, S0628: 2, H0266: 2, H0687: 2, H0617: 2, L0637: 2, L0803: 2, L0789: 2, H0518: 2, L0748: 2, S0434: 2, L0604: 2, H0686: 1, S0040: 1, H0583: 1, S0001: 1, S0420: 1, H0729: 1, H0722: 1, H0619: 1, H0333: 1, H0318: 1, H0007: 1, H0052: 1, H0009: 1, L0163: 1, H0051: 1, H0428: 1, H0181: 1, S0364: 1, H0708: 1, H0135: 1, H0413: 1, S0440: 1, L5575: 1, L0764: 1, L0375: 1, L0378: 1, L0652: 1, L0438: 1, S0126: 1, H0658: 1, H0539: 1, L0740: 1, L0749: 1, L0779: 1, L0752: 1 and		
---------	----------	------	---------	------	---	--	--	--

HAOSU85	HAOSU85R	1016	2 - 508	3191	His-1 to Phe-7, Pro-16 to His-26, Asp-44 to Ser-52.	L0758: 1. H0686: 2, L0362: 2, H0100: 1, H0646: 1 and L0766: 1.			
HAOSW92	HAOSW92R	1017	93 - 317	3192		L0777: 8, L0754: 6, L0662: 4, L0766: 4, S0136: 3, S0406: 2, L0744: 2, L0780: 2, L0752: 2, L0594: 2, H0556: 1, H0686: 1, S0418: 1, S0376: 1, S0360: 1, H0580: 1, H0587: 1, H0486: 1, S0280: 1, L0021: 1, L0105: 1, H0428: 1, L0055: 1, H0212: 1, H0040: 1, S0422: 1, L0639: 1, L5575: 1, L0772: 1, L0372: 1, L0764: 1, L0794: 1, L0522: 1, L0803: 1, L0659: 1, L0529: 1, L0665: 1, H0144: 1, H0547: 1, H0519: 1, H0684: 1, H0659: 1, H0670: 1, L0748: 1, L0756: 1, L0757: 1, L0758: 1, L0759: 1, L0596: 1, L0589: 1, L0605: 1, L0599: 1,			

HAOTB47	HAOTB47R	1018	3 - 107				H0667: 1, H0542: 1 and H0506: 1.			
HAOTB58	HAOTB58R	1019	336 - 485	3193	3194	Ile-3 to Asp-9.	L0756: 6, L0777: 6, S0408: 5, L0770: 5, H0547: 5, S0360: 4, L0665: 4, H0624: 3, H0687: 3, H0170: 2, H0686: 2, L0717: 2, H0497: 2, L0163: 2, L0794: 2, L0766: 2, S0126: 2, L0752: 2, L0731: 2, H0657: 1, H0656: 1, L0808: 1, H0341: 1, S0282: 1, S0442: 1, S0354: 1, S0045: 1, S0222: 1, H0486: 1, L0586: 1, H0156: 1, H0575: 1, H0318: 1, H0581: 1, H0052: 1, L0738: 1, H0266: 1, H0553: 1, H0169: 1, S0036: 1, H0087: 1, H0413: 1, S0422: 1, L0598: 1, L0520: 1, L0763: 1, L0638: 1, L0764: 1, L0803: 1, L0776: 1, L0658: 1, L0659: 1, L0809: 1, L0789: 1,			

1021

H0591: 2, H0616: 2, H0412: 2, H0413: 2, H0059: 2, H0100: 2, S0002: 2, L0369: 2, L0520: 2, L0763: 2, L0637: 2, L0761: 2, L0372: 2, L0767: 2, L0649: 2, L0803: 2, L0776: 2, L0382: 2, L0565: 2, H0690: 2, H0659: 2, H0670: 2, H0660: 2, H0648: 2, H0672: 2, S0404: 2, S0406: 2, H0555: 2, H0478: 2, H0626: 2, H0627: 2, L0070: 2, S3014: 2, S0032: 2, L0741: 2, L0590: 2, L0592: 2, L0599: 2, L0593: 2, L0595: 2, H0543: 2, L0600: 2, H0170: 1, H0171: 1, H0265: 1, T0002: 1, H0140: 1, S0470: 1, H0294: 1, L0785: 1, S0212: 1, S0282: 1, H0484: 1, H0671: 1, H0663: 1, H0664: 1, H0662: 1, H0638: 1, L0005: 1, S0442: 1,	
--	--